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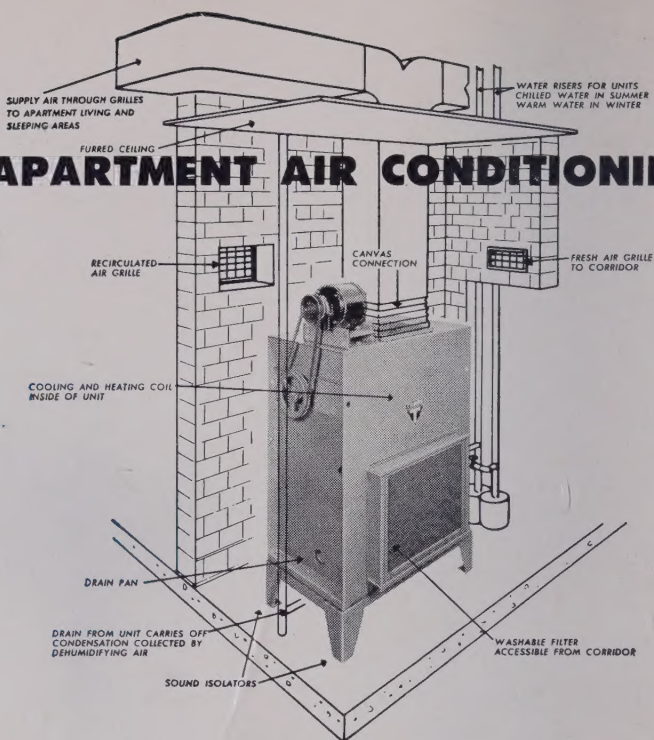
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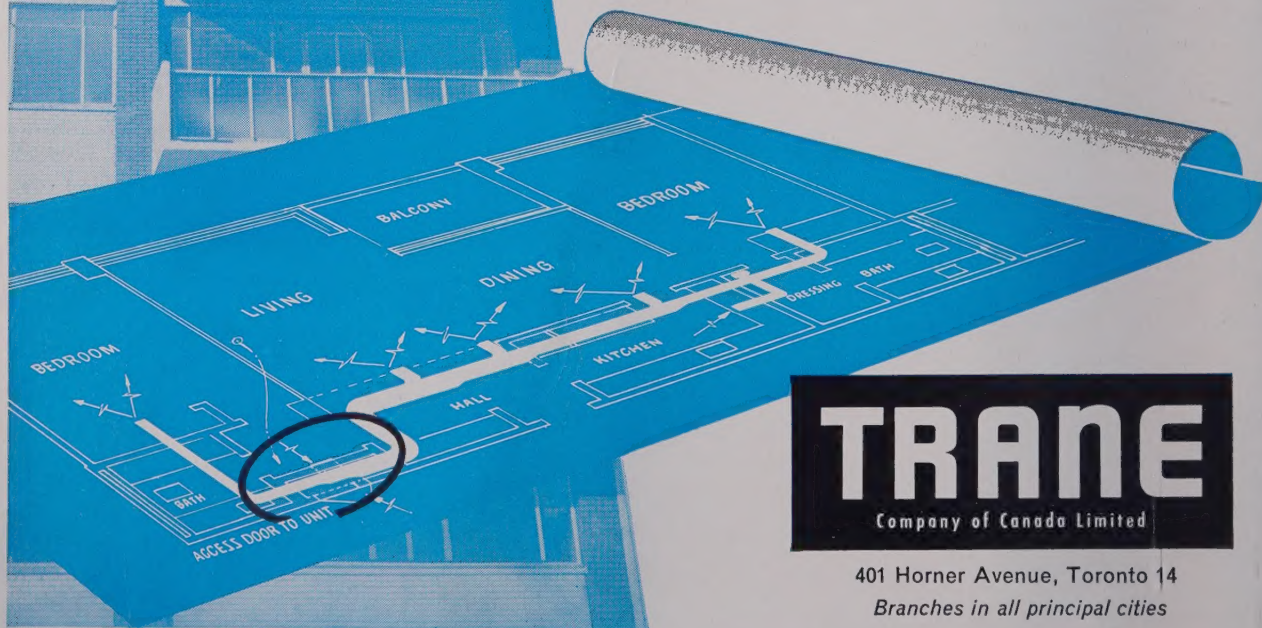


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RAIC JOURNAL

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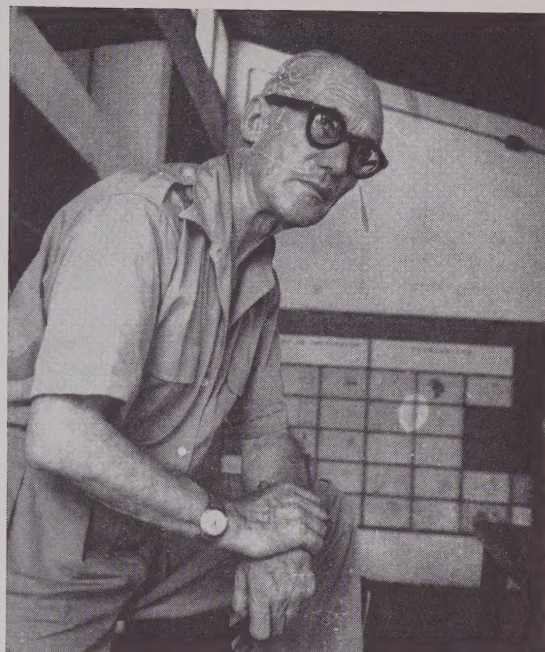
THE JULY ISSUE of the *Journal* will be a special one with its own cover and articles pertinent to the 50th Anniversary of the Institute. It will contain, also, the material that we were able to gather from speeches and seminars delivered in Ottawa. No one who attended the Assembly will disagree that the Ottawa Committee provided the best program we have had in a decade at an Annual Assembly. We limit our praise to the last decade as that has been a critical period. The years prior to that assume historical importance in the history of the Institute, but meetings were primarily for Council, and members outside the hierarchy were left, as a rule, to fend for themselves. Always, however, was the hospitality of the architects in the "occupied city", and that has never varied in its generosity over the years. If it can be said to have reached a peak in a mountain range of peaks, it did so in Ottawa.

In other years, we have given our recipe for a successful annual meeting. It contained among other ingredients a good organizing committee, informative papers at seminars, quite uninformative speeches at luncheons and a final dinner that would do justice in dignity and colour to a royal institute. All were achieved in Ottawa, but one would refer with especially happy recollection to the addresses of His Excellency, the Governor-General and of Mr Stewart Bates, the Director of CMHC. His Excellency has the happy faculty of striking the most felicitous note in his talks to audiences of widely different education and interests. His speech at the final dinner was no exception, and will be read with pleasure by all readers of the *Journal* in July.

Mr Stewart Bates expressed so eloquently our responsibility to society over the next half century that he might well have been asked to set the keynote to the Assembly rather than to the seminar on housing. His words left no doubt in anyone's mind that a new spirit was abroad in CMHC that cannot help but improve the living conditions of thousands of Canadians. Under Mr Bates's direction, it is clear that the role of CMHC will not stop at the individual house, however economical and satisfying. Nothing short of what is best in subdivision planning and what makes for the good life in the residential areas of Canada will suffice. It is to be hoped that the motion calling for a committee to explore the possibility of a liaison between the RAIC and CMHC will be acted upon at once.

Something of a phenomenon noticed by many at the Assembly was the large number of young architects present. That, in itself, was one of the ingredients we considered essential to a successful meeting, and it was a very great pleasure to see the graduates of the last ten years taking their place as much in debate as in the fun. Of the latter, one can only say that the skit on Andrew Cobb might beat anything of the kind we have seen in years. We heard one elderly Fellow say "Nothing like it since the Dumbells". That seemed to be praise indeed, and, when the lights went on, there was hardly a dry eye.

In conclusion, we take the opportunity of congratulating and thanking Mr Gordon Pritchard and his committee most heartily for most excellent arrangements and a program that never lagged. We also congratulate our President, Mr Kertland who carried off his onerous duties with dignity and apparent ease. He seemed always available, and always there, whether the audience were members, dignitaries or exhibitors. The knowledge of his election to a second term and his consent to act will be received with pleasure by all members of the Institute.



Le Corbusier

Chandigarh

BY GILLES GAGNON

TODAY, WHEN CITIES ARE BEING CREATED in every country, we need a man like Le Corbusier to tell us that: "The hour has now come for the rebirth of the world; a world which can be outstandingly beautiful!" Chandigarh, the new capital of the Punjab State, illustrates what he means.

After the division of the Punjab in 1947, Lahore, the original capital, was given to Pakistan. So a new capital was needed for India; instead of adopting an existing city, Pandit Nehru decided to build a completely new one, "... symbolic of the freedom of India, unfettered by the traditions of the past ... an expression of the nation's faith in the future". To create this capital the most distinguished architects and planners were chosen. Le Corbusier, with his collaborators Pierre Jeanneret, Maxwell Fry, Jane Drew, aided by the flower of India's own young architects. There have been other occasions when disaster has been converted by a determined and vigorous people into a national advantage, but few of those who left their beloved homes in Lahore could have foreseen the possibility of building what may well be the most outstanding city in the world.

Let us go together if you wish, for a visit to this city.

As we approach by plane, it is obvious that no finer site could have been chosen on which to build a new city. It lies on a plain rising gently towards the foothills of the Himalayas, bounded on the east and west by tributaries of the Indus. Agriculture flourishes on its rich soil, and its noble and varied trees include the largest mango in India. Below the surface runs a plentiful supply of water for drinking and irrigation. In addition, the site has a central location, a moderate climate, easy accessibility,

an abundance of raw materials, a firm soil, and the splendid ever-changing background of the Himalayas.

What a wonderful opportunity for Le Corbusier to apply his philosophy of architecture and town-planning, and to use his Golden-Scale, the "Modulor", a mathematical, human and harmonic scale which brings security and proportion in design by a method analogous to those used in all the great periods of architecture. It brings to the arts and crafts of building the richness of unlimited combinations. "The Modulor, miracle of numbers! Key of harmony!"

From the air the city looks like an immense checker-board composed of rectangles ($\frac{1}{2}$ mile by $\frac{1}{4}$ mile) separated from each other on all sides by a network of fast roads. These sectors would be independent if they were not inter-connected by a series of parallel green-bands cutting them in the middle and striating the whole city from north to south. Thus throughout the city there is plenty of green space. "Sunshine, space, vegetation". These green-bands will allow pedestrians and cyclists to get from one part of the city to another without danger. The sectors are further linked together by a business-street which also splits them through the centre but in the opposite direction (east-west) to the green-bands. These business-streets will allow the free circulation of motor traffic through the city. "We must separate the automobile from the pedestrian".

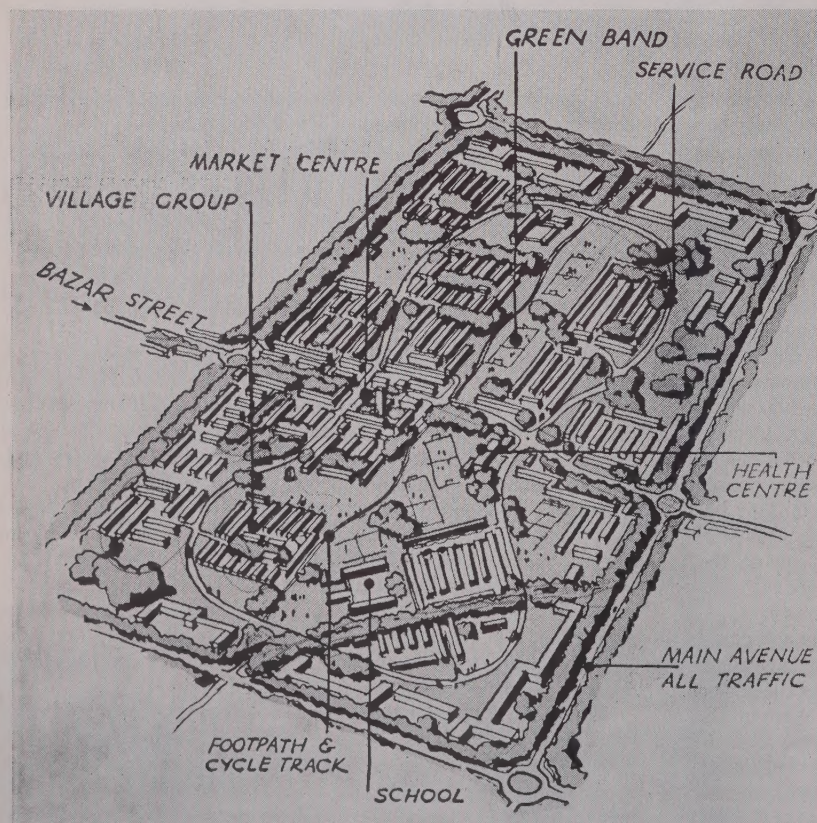
Further up the sloping plain, between the city and the mountains is the Capitol, home of the state government. On the west side of the city are the university, museums, hospitals, theatres, stadiums, ... on the east side, near the railway and highways are the industrial-zones. At the foot are the markets



REVISED 1955

Plan of the new capital Punjab

Final pilot plan of Chandigarh. Note fast-road grid, parallel green bands, east-west commercial streets, two main civic boulevards intersecting at the City Core, and the Capitol-Complex at the very top.



- 1 Assembly Chamber
- 2 Secretariat
- 3 Capitol
- 4 High Court
- 5 University
- 6 Stadium
- 7 Reservation for Transport Services
- 8 Railway Station
- 9 Main Commercial Centre
- 10 Town Hall
- 11 Engineering College
- 12 District Centre
- 13 Chief Minister's Residence
- 14 Chief Justice's Residence
- 15 Canal
- 16 Town Park
- 17 Public Library
- 18 Museum
- 19 School of Arts and Crafts
- 20 Govt. College for Men
- 21 Govt. College for Women
- 22 Dental College and Hospital
- 23 100-Bed Hospital
- 24 Maternity Hospital
- 25 General Market
- 26 Polytechnic Institute
- 27 Red Cross Offices
- 28 Boy Scouts
- 29 Crematorium
- 30 M.L.A. Flats
- 31 Ministers Residences
- 32 Theatre
- 33 Sub-Jail
- 34 Central Police Station
- 35 Rajendra Park

General layout of typical sector. It is evident that open space is here ample. See the service road in the shape of a large figure 8 interconnecting different villages. The exterior main traffic roads are all equipped with traffic circles.

and the plain which feeds them. Immense cross! formed by two monumental civic avenues, whose main trunk links the head (the Capitol) with the base (the Country itself). At the end of each arm of the cross, are joined the brain (the University) with the motor (the Industry), and at the intersection of these two great avenues, is the "heart" of the city with its civic-core and business-centre. The pattern of this master plan brings into a frame of harmony the four functions of urban life which are: to dwell, to work, to cultivate body and mind, and to circulate. "Consolidation of our daily functions unfolding all along the twenty-four solar hours".

From the airport, which is only fifteen minutes journey from the heart of the city, our fast automobile travels along the expressway, built sometimes above, sometimes below ground level. Here the surface of the soil belongs to the pedestrian. Man has regained calm and security, and with them the conditions necessary for happiness and health.

Now we are approaching the city and as we leave the expressway, the speed of our automobile is slightly reduced. Cars flow freely and rapidly along the city roads because of traffic circles at all intersections with other main roads. Let us enter one of these sectors. The speed of our automobile is again reduced as we turn into the business street. Here we find bazaars, workshops, professional offices, family hotels and restaurants, cafés, cinemas, etc. By placing the bazaars one side of the street only, pedestrian crossings are eliminated and the cool shaded side of the street reserved for shoppers. At the intersection of the commercial street and the green-band

is the community centre of each sector, with clinics, post office, telephones and telegraphs, police and fire station, meeting halls, club rooms, and so on. Necessary parking space is off the streets, main roads and commercial streets are completely free of curb parking. Spread about in the green band there will be schools, libraries, churches, gymnasias, kindergartens, all in natural and quiet surroundings. A sector is thus an entity complete in itself.

Each sector contains 10,000 inhabitants, and each is subdivided into smaller clusters of approximately 1,000 persons. This would be the normal population of a Punjab village, and in this way, Indian communal life, centering round a local meeting place is preserved. Here life will be sociable, free of danger for young and old. "...there must be a place for people of all ages". And so the city is built up, each village group has its meeting place, each sector its community centre, all the sectors have the civic core, heart of the city. Le Corbusier says: "I aim at creating places where human beings can meet to talk in useful and favorable conditions." Each sector has been differently planned to avoid monotony. The dimensions and shape of the open spaces, the grouping of the villages — all vary from sector to sector. Even the species of trees are different. As implied above, the traffic system is very well organized. The planners have divided the road system into seven categories. Some are for fast vehicles and others are solely for cyclists or pedestrians. Thus the pedestrian is not endangered by traffic and is readily able to reach public transport. The driver on the other hand has easy access to the fast grid network from any



Small backyards and peons' houses

General view over a part of the city. Smallest dwelling units of the city are in the foreground. High School in the background.

part of the sectors.

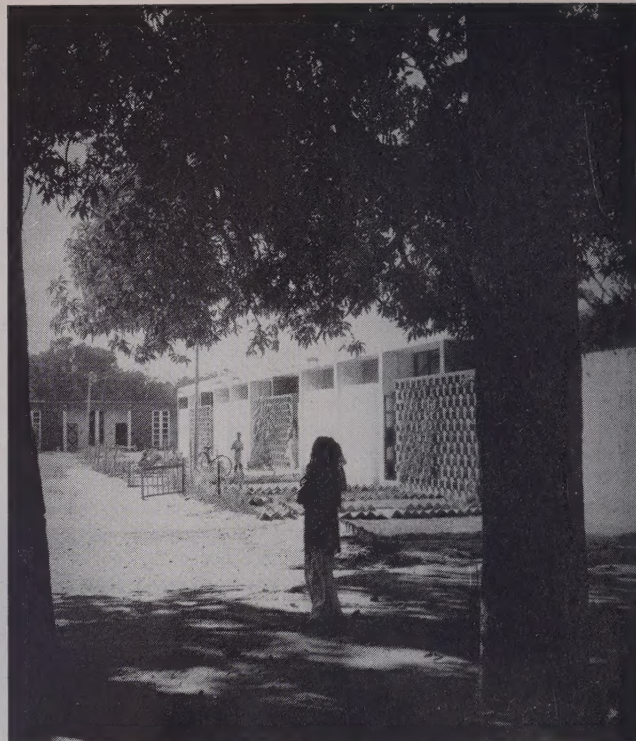
Since Chandigarh is the capital city of the Punjab state, the main objective was to build a "Capitol-Complex" for the Parliament, the Ministerial Offices, the High Courts and the Governor's Palace. All these important buildings with their annexes and grounds were designed by Le Corbusier. We will go and have a look at this Capitol-Complex, the very head of the city. We drive along a magnificent avenue of beautiful trees. To our left is a succession of parks where terraced lawns slope down to a stream. Half hidden by aged trees are concert halls, a stadium, the university, libraries. To our right the public buildings opening onto squares project magnificent perspectives into the distance. The delicate elements of detail accentuate the distinctness of the larger overall pattern.

Softened a little by the atmosphere, the distant buildings of the Capitol-Complex rear their profiles against the sky and mountains. "A profile determines the personality of the mass; a profile has a play of light with the sun like that of a melody. A profile is a built-up melody."

We are approaching. The tall buildings form a majestic ensemble of masses in direct relationship with the topography like a sculpture carved out of the earth. The view is lost as we enter an underpass road to park our car. We walk up to the esplanade of the Capitol-Complex. Suddenly we are right at the foot of the buildings. Immense geometry! Everywhere trees, flowers, sculptures, the sun turning and the clouds moving softly. The masses of the buildings have the volume and form to respond to the play of light.

Besides his written works which Le Corbusier has given us so freely, it is his ardour, his faith, his ideals, his creations themselves which should show us the way to complete harmony. "Harmony, the key to beauty, a word for synthesis in the arts, is the word of tomorrow! . . . Our real task is to harmonize everything."

"For too long we have driven technics and spirituality apart," says Le Corbusier. Technics and spirituality divorced from mankind have created two opposing worlds; but when these worlds meet again in man they form a unity which is the spirit of truth. One can only reach this unity by a synthesis which is Le Corbusier's end. Synthesis of beauty and efficiency, synthesis of the architect and the engineer, whose functions were arbitrarily dissociated, synthesis within the city of the individual and the mass, synthesis of all the major arts as in Greek times, when architecture, sculpture, frescoes and mosaics all formed part of a plastic whole.



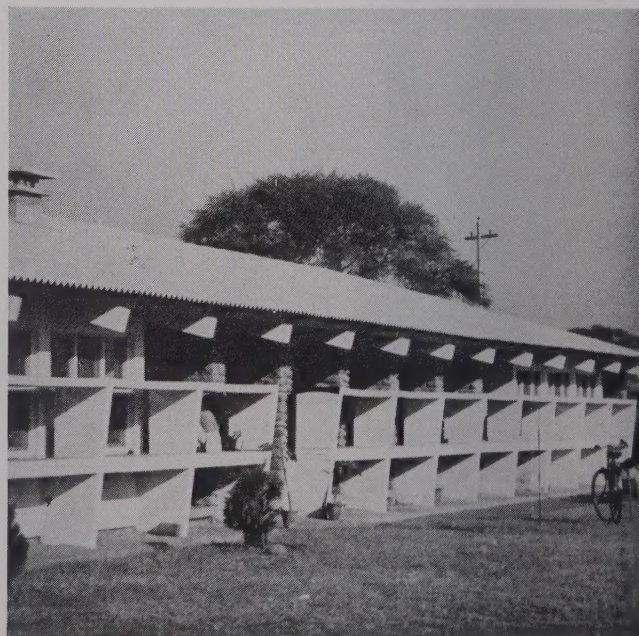
Houses are grouped around courts and local meeting place. Their grouping form village clusters within each sector.



Main traffic road with two rickshaws

Chief Architect's Office in Chandigarh

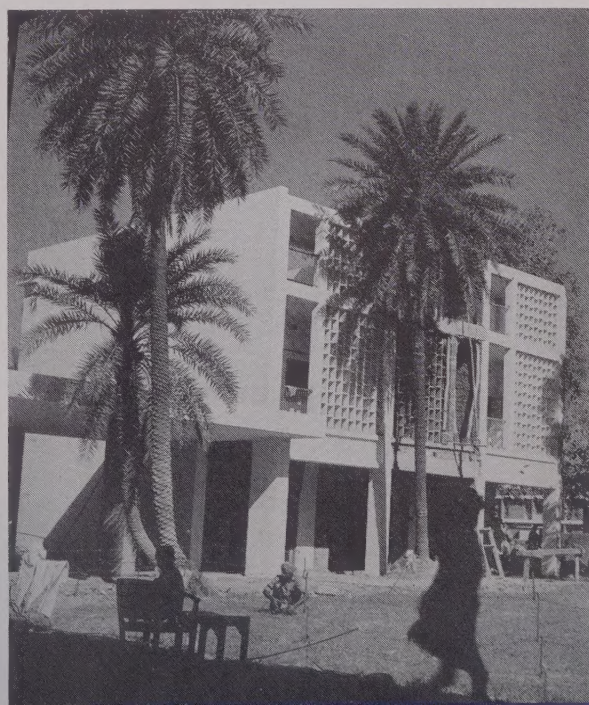
Large house



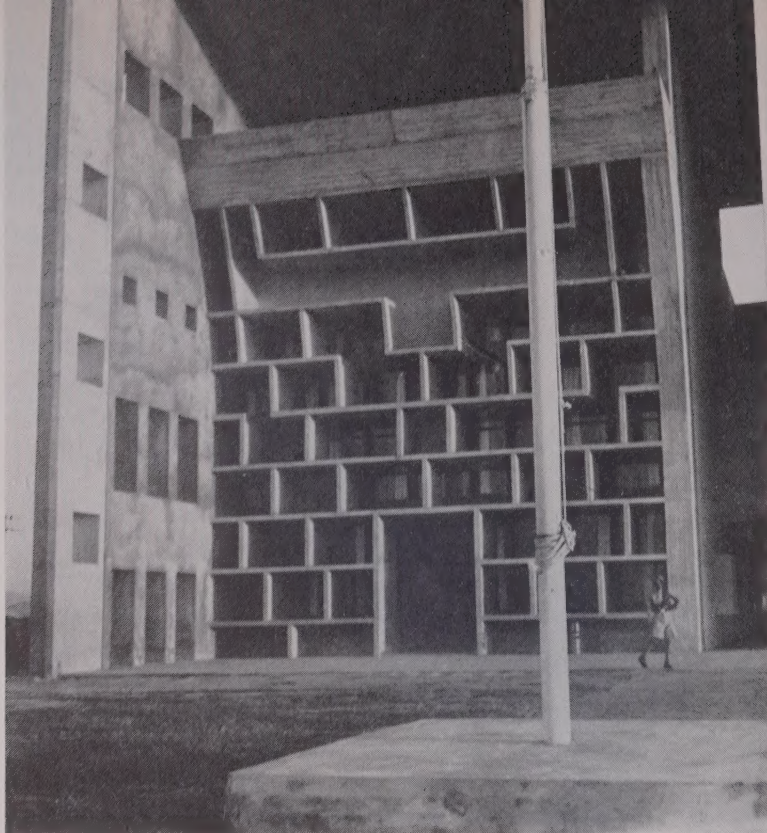


Interior courtyard of a large residence

*Houses are distinguished by simple materials,
honeycombed sun-breakers, ample ventilation
and sleeping decks on roofs or loggias.*



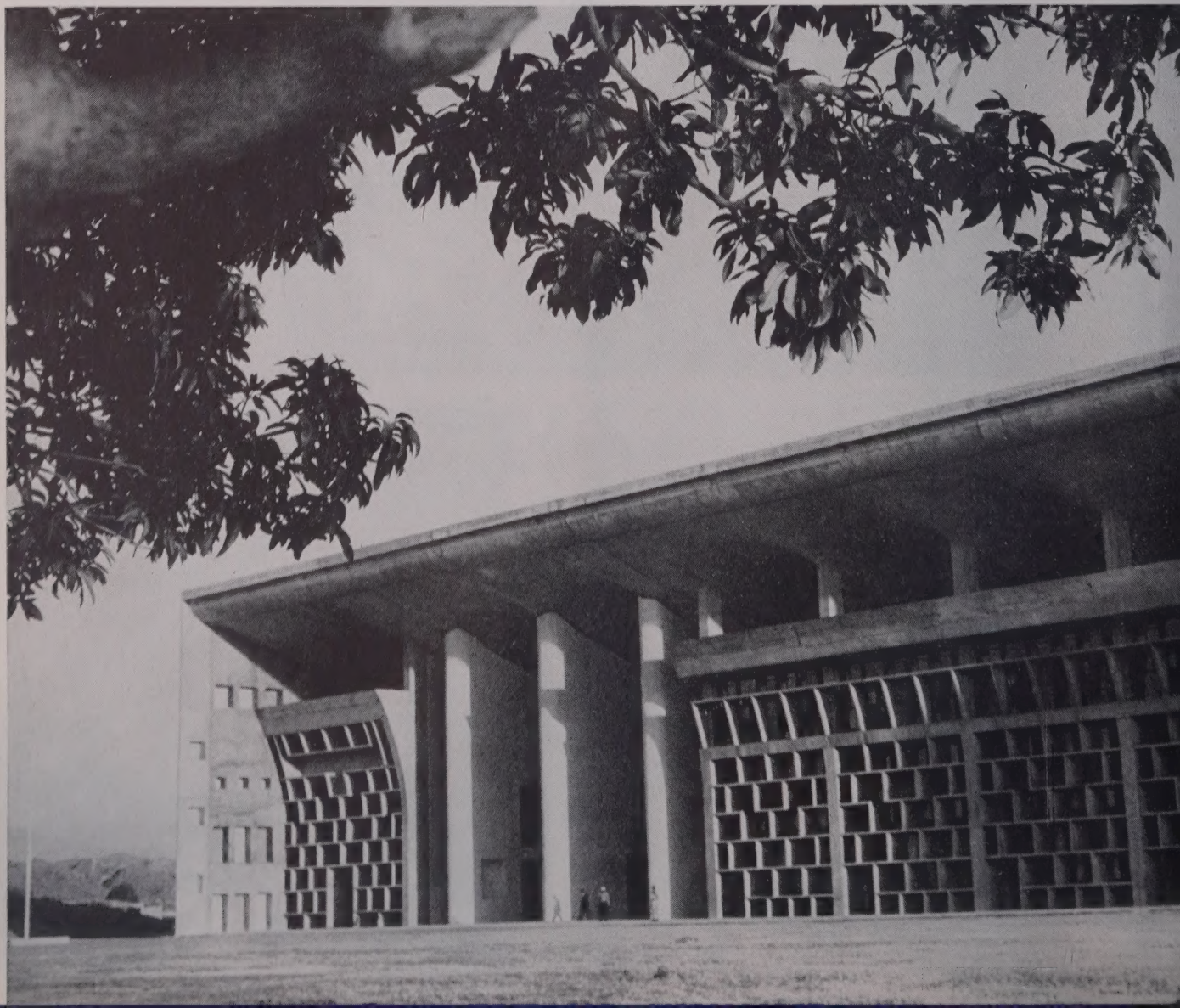
Façade of medium size residence



Closer view of the Queen's Bench Court

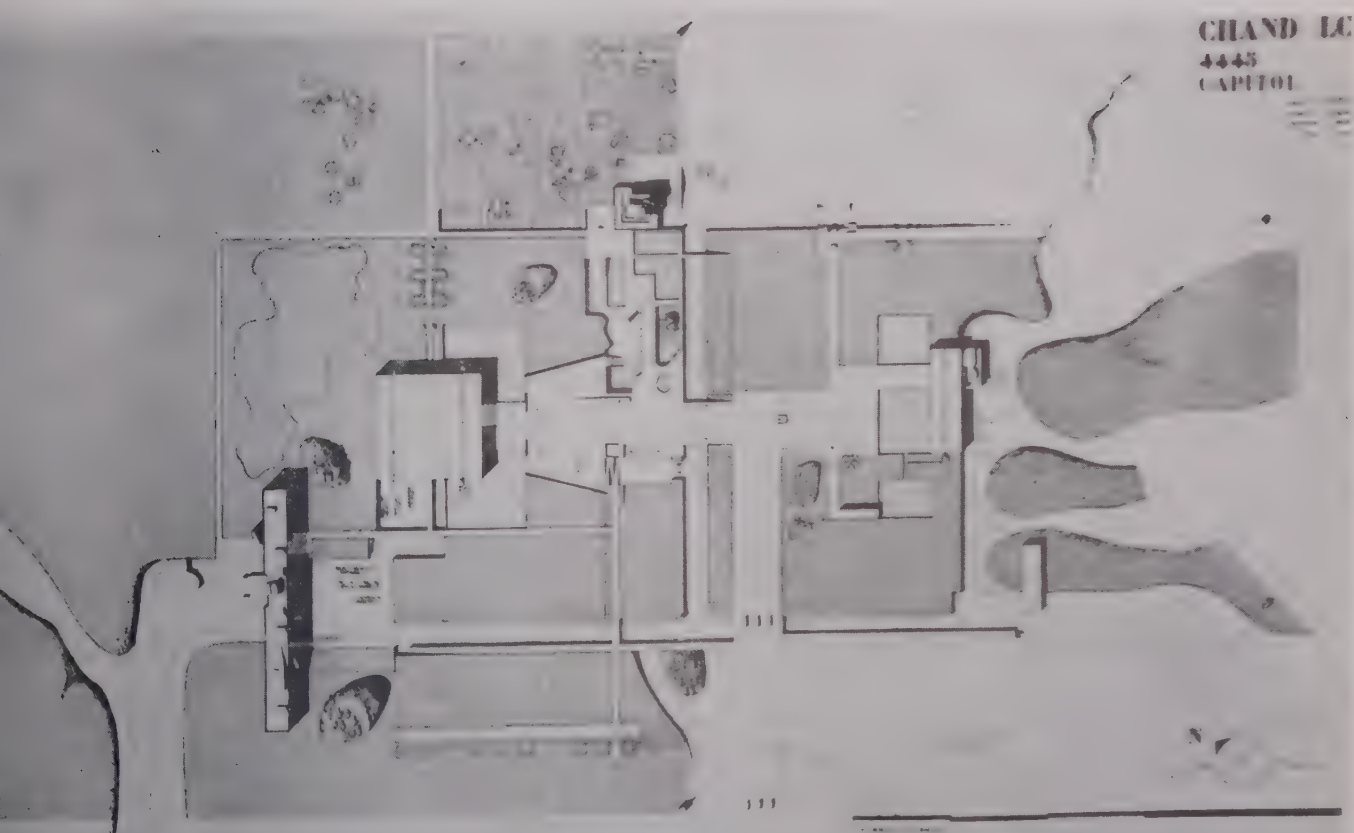
The High Court Building, designed by Le Corbusier. This front view shows the Queen's Bench Court, the main Public Hall and five of the eight Courts with their respective polychromed sun-breakers. A large umbrella covers the roof of all these court-rooms to protect them from the hot sun and the torrential rains of the monsoon season.

Façade of the High Court framed with a mango tree



Block plan of the Capitol-Complex. "Majestic ensemble of masses in direct relationship with the topography. Immense geometry". Observe landscaping, the entrenched service streets, the numerous water-basins and the axonometry of the whole complex.

THE CAPITOL-COMPLEX



CHAND LC
4445
CAPITOL

Plan définitif du Capitole

- 1 L'Assemblée
- 2 Le Secrétariat (Ministères)
- 3 Le Palais du Gouverneur
- 4 La Haute Cour
- 5 Arrivée et parking des autos
- 6 Circulations des piétons
- 7 La Vallée des loisirs
- 8 Rideau d'arbres
- 9 Les signes
- 10 Les bassins devant le Palais
- 11 La Fosse de la Considération avec «La Main ouverte»
- 12 Bâtiment réservé
- 13 Le bâtiment des avocats
- 14 Les grands bassins
- 15 Les collines artificielles
- 16 Les jardins privés du Gouverneur

A Les bâtiments

B Les circulations

C Les éléments paysagistes

Les éléments constitués du projet sont:

- 1 L'Assemblée
- 2 Palais des Ministres
- 3 Palais du Gouverneur
- 4 La Haute Cour

Les voitures en tranchée vont directement au pied des bâtiments. Toute l'étendue du capitol est libre du va et vient de la circulation mécanique. Le piéton est maître.

La grande esplanade entre la Haute Cour et l'Assemblée. Les grands bassins de l'Assemblée et de la Haute Cour. Le jeu des terrasses et bassins aux différents niveaux intégrant à l'ensemble le palais du gouverneur, les jardins privés du gouverneur, les montagnes artificielles.

Inside perspective with columns and curved walls



The High Court Building. The rear view shows the offices of the judges and the deliberation rooms with their loggia. Observe the play of dark and light surfaces; and the free form of the columns on the rear terrace under the large umbrellas.

Rear elevation of the High Court



The Architect and Contractors' Liability Insurance

BY MEREDITH FLEMING

THE CANADIAN STANDARD FORMS of Construction Contracts require the contractor to provide insurance against damage to persons or property arising from operations under the contract and to satisfy the architect as to the adequacy of the protection.

These requirements are set out in Article 19 of the Conditions in the "stipulated sum" form (No. 12) and in Article 16 of the "cost plus" form (No. 13). The "cost plus" Article is distinguished from that in the "stipulated sum" form by including with property damage, loss of use.

Under the above articles, the contractor is required to file, with the owner or the architect, certificates of the aforesaid insurance and these are subject to the approval of the architect as to the adequacy of protection. How should the architect proceed to deal with the situation?

It appears to be the general practice for the contractor to deliver a certificate from his insurance company to the effect that he has certain specified insurance in force in respect of claims which may arise from the carrying on of the work. The certificate may indicate the dollar limits of the insurance company's liability and the adequacy of the amount of the insurance under the circumstances is probably the principal thing that those who drafted these standard form clauses had in mind. It will be for the architect to make up his mind whether, under all the circumstances, the limitations are high enough. In these days, juries and judges who may not be told whether or not the party against whom a claim is made, is insured, probably assume that insurance is in force in respect of the type of risks against which prudent people insure themselves. These circumstances, together with a recognition of the changed value of the dollar, are probably responsible for the fact that the size of the verdicts in damage actions seem to be generally on the increase.

One experienced member of the profession has expressed the view that a minimum limit of \$5,000 in respect of property damage and \$100,000 in respect of personal injuries to any one person and \$300,000 for personal injuries for any one accident, are adequate. That property damage limitation seems low when one thinks of the damage which may be caused by faulty shoring or undermining a wall. If the architect, having considered the circumstances and discussed the risks of damage to persons and property with the contractor, the owner and the contractor's bonding company, decides on certain limits, he could not be said to have failed to discharge his responsibilities on this point.

If the contractor only provides a certificate as to the insurance covered by *his* policy, the architect should obtain a copy of the policy and carefully examine the conditions of the coverage. If it is possible for the insurance company and the contractor to make changes in the terms of the policy, they may make changes which would prejudice the adequacy of the owner's coverage and there might be no obligation on the part of the insurance company to notify the owner of the change. Policies frequently contain exclusions of liability in respect of certain matters which might not appear on the face of the certificate delivered to the architect but which might seriously limit the scope of the coverage. It is, therefore, important that the architect should see a copy of the policy itself and that he should read it from cover to cover, typed or handwritten in-

serts and riders, small print and large print. He should check the correctness of the description of the parties and the work. He should see that it covers damage incident to clearing the site, excavation, shoring, underpinning, operations related to the work carried on away from the site itself, the work of subcontractors and the operation of motor vehicles and other equipment on or off the premises whether a licence is or is not required for the operation of the vehicles and equipment. He should prefer a policy which covers "personal injuries" rather than merely "bodily injuries" as the former term provides a broader coverage.

It is important to know the representations that were made in the application for the policy. A misrepresentation or the omission to disclose a fact material to the risk may render the policy completely void. A "material fact" may be taken as one which would lead a reasonable insurer to decline the risk or require a higher premium if it had been disclosed. When the architect has checked over the certificate and the policy, he should then send them to the owner. He should point out any respect in which the insurance appears to him to be inadequate or as to which he has any doubt, and at the same time he should advise the owner to read over the documents and have them considered by his solicitor. The architect should not go on record as being satisfied with the adequacy of the protection until he has cleared with the owner in this manner. He may, of course, ultimately be in the position of having to decide as between the owner and the contractor as to the adequacy of the protection.

The position of both the architect and the owner might be improved if a clause, somewhat different to Article 19 and Article 16, were used. There seems to be no good reason why the provisions of both the "stipulated sum" and "cost plus" contracts should not be identical and protection against "loss of use" covered in both. If the contractor is required to provide insurance policies in which the owner, as well as himself, are named as the insured, changes cannot then be made without notice to both. Both will probably have to sign the application for the insurance, either personally or by someone authorized for them, and the owner will then know exactly what representations are made to obtain the insurance. Article 16 and 19 might better read as follows:

"The contractor shall maintain such insurance or pay such assessments as will protect him and the owner from claims under workmen's compensation acts and he will submit proof that such insurance is being maintained or such assessments are being paid if and when called upon by the owner or the architect to do so. The contractor shall also provide such policies of insurance written in the name of himself and the owner as the insured as will protect him from all claims for damages for personal injury including death and from claims for property damage and loss of use of property which may arise from the operations under this contract. In the event of a dispute between the owner or the contractor as to the adequacy of such protection, the adequacy shall be decided by the architect. The aforesaid insurance and payment of assessments shall be maintained until the architect certifies that the work is complete."

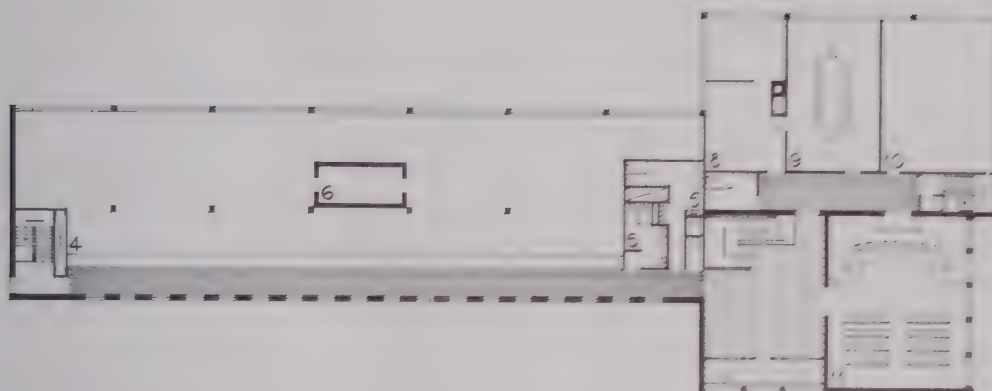
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Cost: \$55,042 includes forecourt paving but excludes loading, parking lot, driveways.



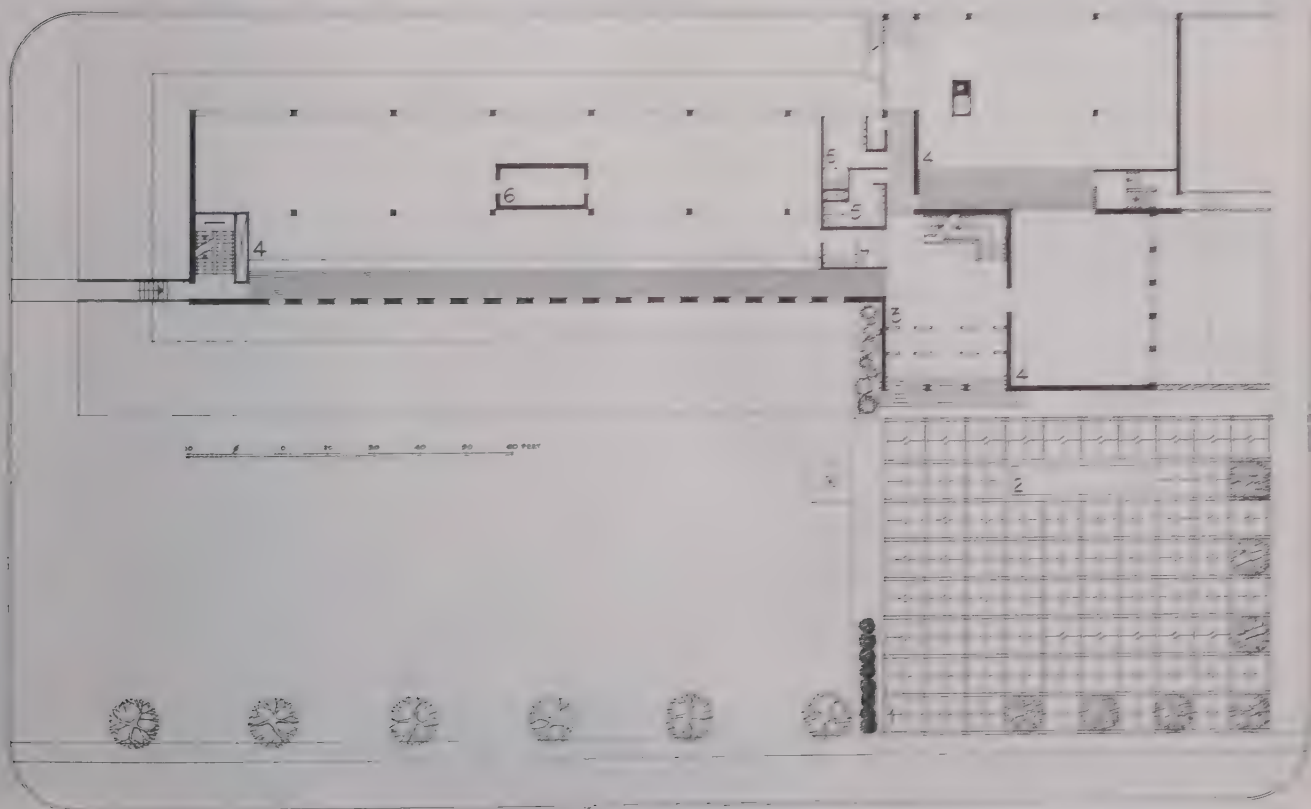
East elevation from Yonge Street

Second floor plan



- | | |
|-----------------------------|----------------------------|
| 1 Brick and concrete paving | 7 Enquiry and switch board |
| 2 Pool | 8 Reeve's suite |
| 3 Entrance | 9 Committee room |
| 4 Offices | 10 Legal Department |
| 5 Toilets | 11 Council Chamber |
| 6 Vault | |

Main floor plan

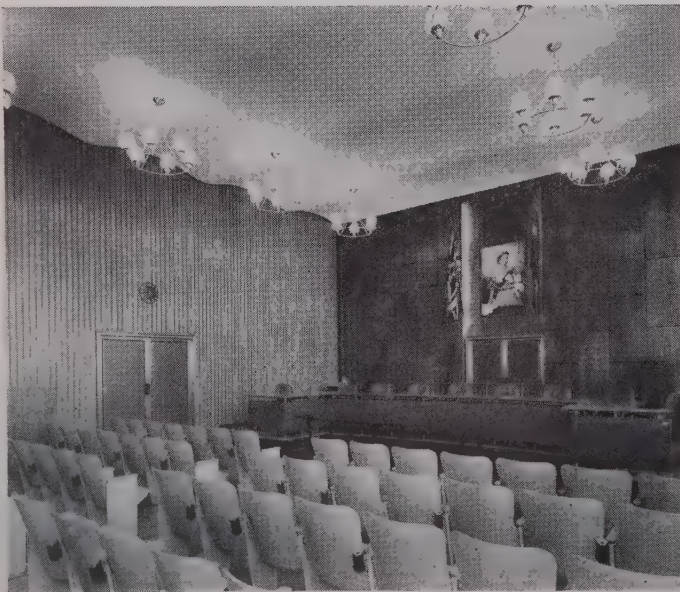




Third floor lobby

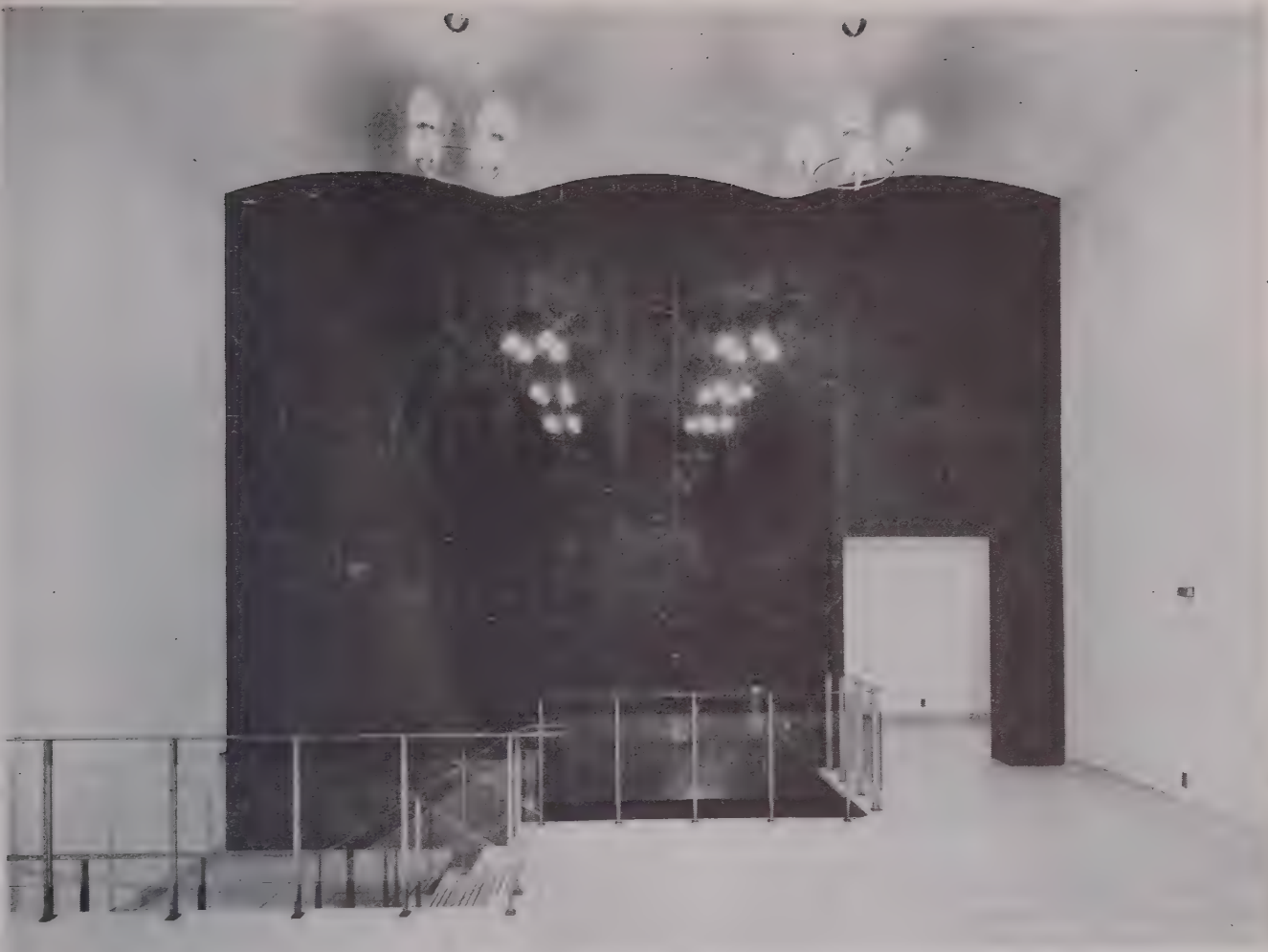
HUGH ROBERTSON-PANDA

Council Chamber

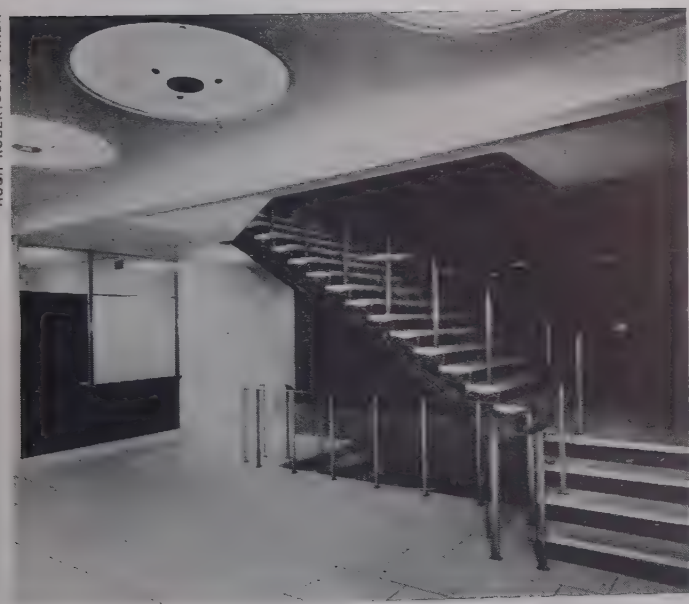


The Council table





Entrance to Council Chamber



Main entrance hall

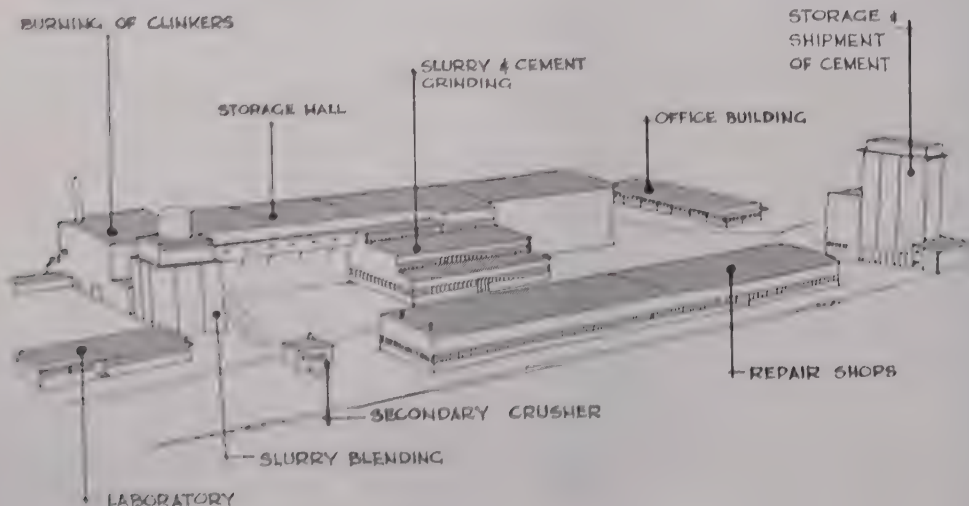
Inland Cement Company Limited
Edmonton, Alberta

Architects, Durnford, Bolton, Chadwick & Ellwood
Associate Architects, K.C. Stanley and Company

Structural and Mechanical Engineers, Foundation of Canada Engineering Corporation Ltd.
Associate Structural Engineers, R. M. Hardy & Associates Ltd.
General Contractor for Plant, Burns & Dutton Concrete & Structural Co. Ltd.
General Contractor for Office and Laboratory Buildings, Bird Construction Company Ltd.
General Contractor for Cadomin Plant, Brown & Root Company Ltd.



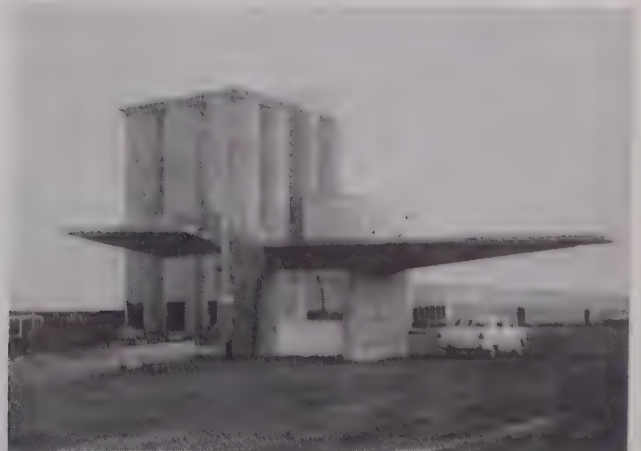
RANSON



Gate House weigh scale
Repair shops extreme left, office building at right



Gate House with storage and
 shipment building in the distance



Office building from east



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Slurry blending building and conveyor from crusher

RANSON



**The T. Eaton Company Ltd.
New Service Building
Toronto, Ontario**

Architects, Allward & Gouinlock

*Consulting Engineers, R. P. Allsop & Associates Ltd.
General Contractors, Redfern Construction Co. Ltd.*

The area of the building is approximately 1,250,000 sq. ft.



WARNER PHOTOGRAPHIC LTD.

General view of warehouse from Highway 400

Detail of central element



WARNER PHOTOGRAPHIC LTD.

Western Plywood Limited, Edmonton, Alberta

Architects and Consulting Engineers, Rensaa & Minso

General Contractor, Buchanan Construction and Engineering Company Ltd.

In the fall of 1956, our firm was retained to design a plywood manufacturing plant for Western Plywood (Alberta) Limited. The Company had obtained the rights to large tracts of Poplar timber from which plywood was to be produced. This kind of timber had not been used to any great extent in this Province for commercial purposes.

The owner had bought a site which was conveniently located, but where soil and drainage conditions were extremely poor. The ground water elevation was only a few feet down and heavy machinery had to be supported on piles.

Our first problem was the design of an efficient production layout. The importance of this can hardly be overestimated. Every minute of time which can be gained in each step of fabrication will, in the aggregate, save considerable capital. Such saving may even involve the survival of a company under keen competition. A large amount of work was therefore expended on plant layout. It is believed that the result obtained in that respect has been satisfactory because it has been stated by outside experts that this plant, dollar for dollar, is one of the best in North America.

The owner needed to have the plant in operation at the earliest possible date in order to meet delivery commitments.

Structural steel of heavier sections was only available at long time of delivery. Columns and most of the beams were therefore, as far as possible, designed in precast reinforced concrete. Precasting was done at the site early in the spring of 1956 and the frame was already erected at the time of delivery of the roof trusses.

Foundation work for building and the 25-ton hammerhead crane, straddling the railway track, was done late in the extremely cold fall of 1955. Work on the superstructure was then started early in the spring of 1956 and the plant was ready for production the same fall.

The roof of the main part of the building is supported by continuous steel trusses of 75'—75' and 90' span between supports and spaced 24' apart. These trusses support ordinary open web steel joists at 4' centres. The joists again support 2" x 4" purlins on flat at 2' centres which carry the ½" thick Fir plywood roof sheeting. The roof on other parts of the building is supported on long span open web steel joists and where overhead cranes are placed, the roof is supported on structural steel beams.

The main continuous roof trusses deserve special mention. They are designed with temporary hinges placed in such posi-





tions that the maximum bending moments will be, as nearly as possible, the same over supports as at mid span. The temporary hinges were closed after the dead load was in place. The advantage gained by this type of construction, which is thought to be rather original, is the same as is obtained by the modern plastic theory of steel design but without the disadvantage of overstressing any part of the steel.

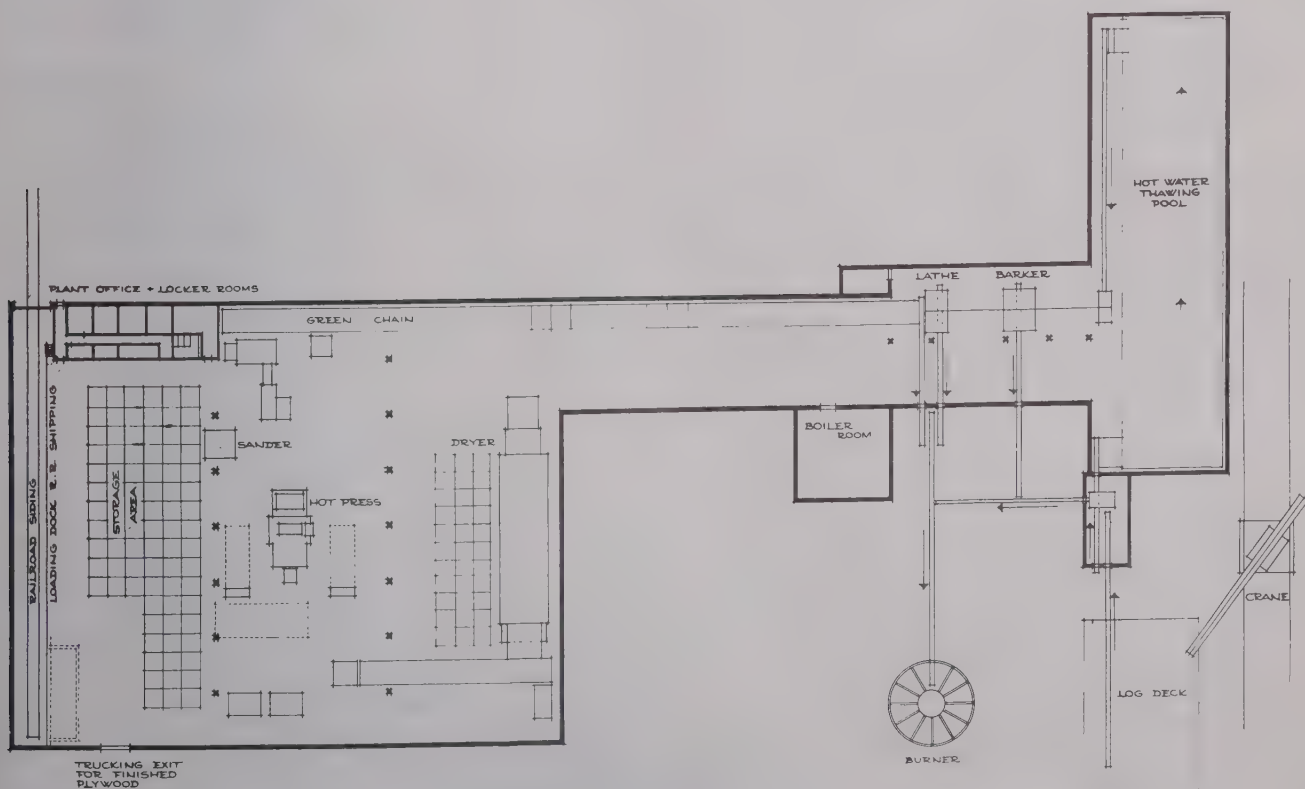
Outside curtain walls are rock wool insulated wood framing with outside and inside plywood sheeting. The exterior plywood has an application of Crezon skin surface which forms an excellent base for paint. Special permission had to be obtained to use plywood instead of a more fire resistant construction since the owner wanted to demonstrate his own product.

Continuous window bands are an integral part of the stud

wall panel. The windows are placed at the highest possible level to insure a favourable angle of light inclination. These window bands give the structure a light and unrestrained appearance.

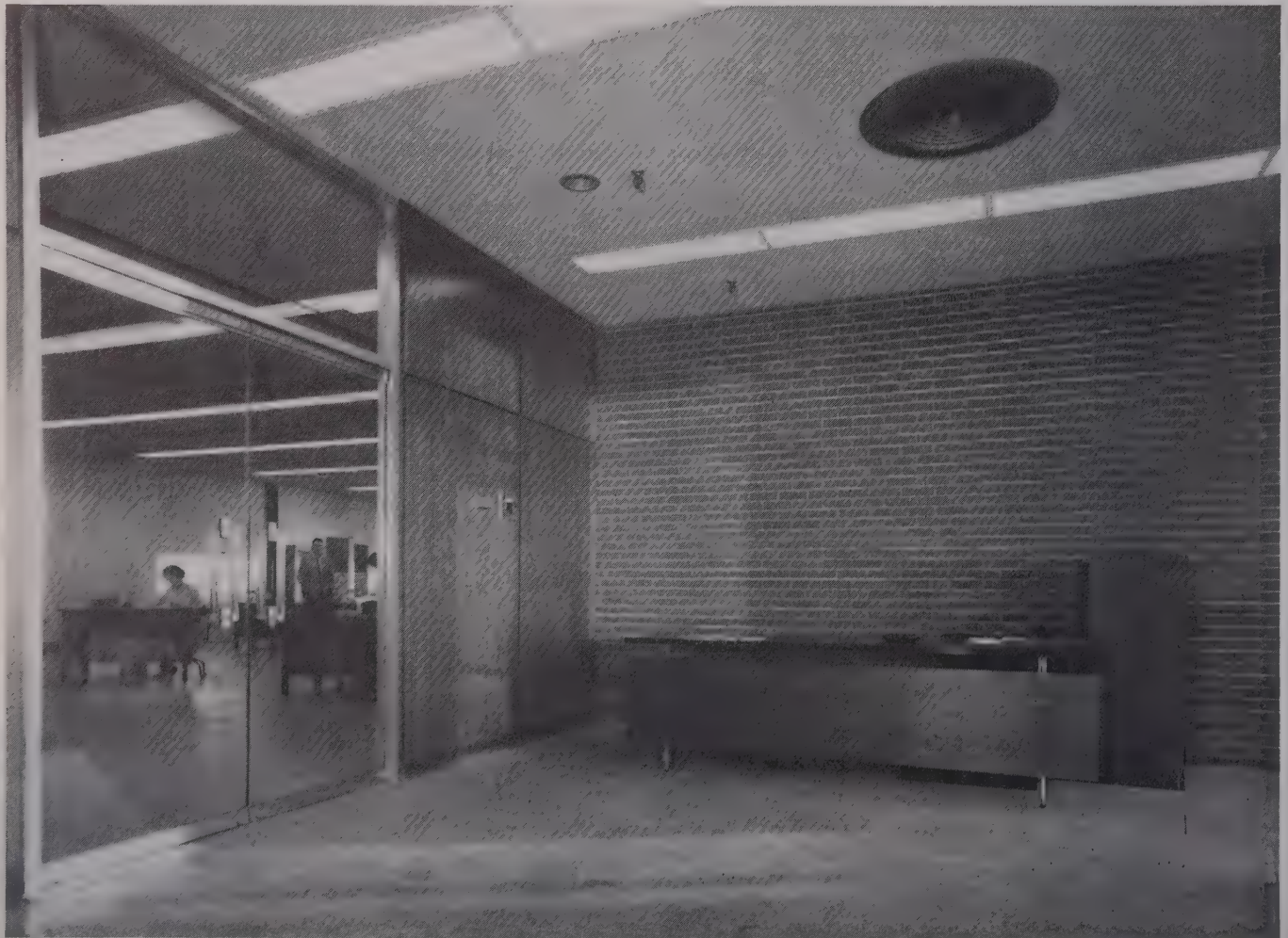
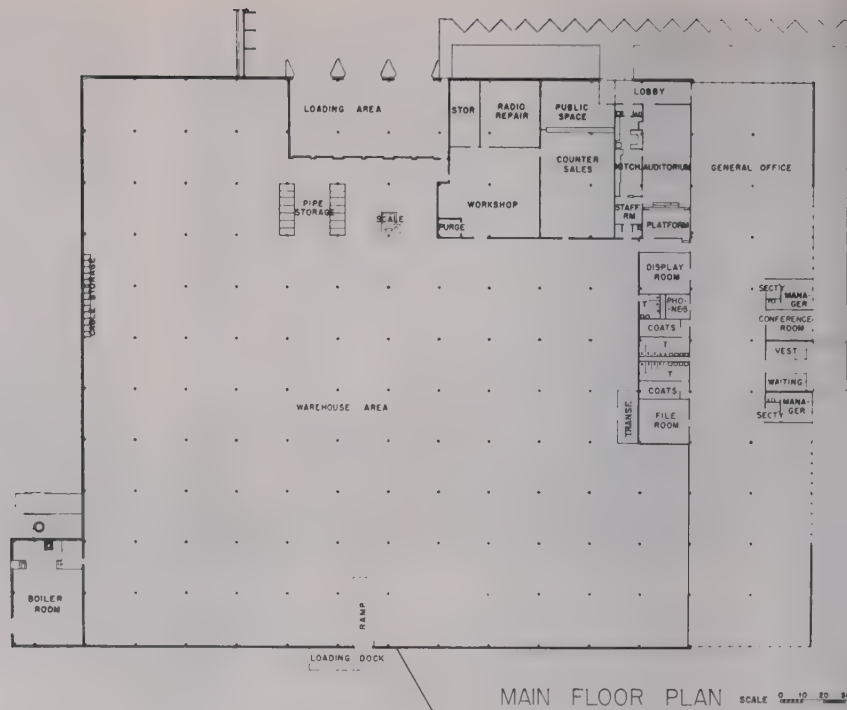
The plant is, of course, laid out with expansion in mind. The floor area can be greatly expanded and the flow of production still maintained. This flow runs very smoothly from the point where the logs are unloaded by the hammerhead crane, then entering the thawing pool and from there to the point where the finished plywood is ready for shipment either by rail or truck.

The roofed in area covers approximately 66,000 square feet and the cost per square foot of the building without mechanical works is \$5.30.



Canadian General Electric
Company Limited
Winnipeg, Manitoba

Architects and Consulting Engineers,
Green, Blankstein, Russell and Associates
General Contractors, Wallace & Akins Ltd.



PHILLIPS-GUTKIN



Detail of main entrance



General office



The warehouse



HUGH ROBERTSON-PANDA

St. Lawrence Cement Company Clarkson, Ontario

The Board Room



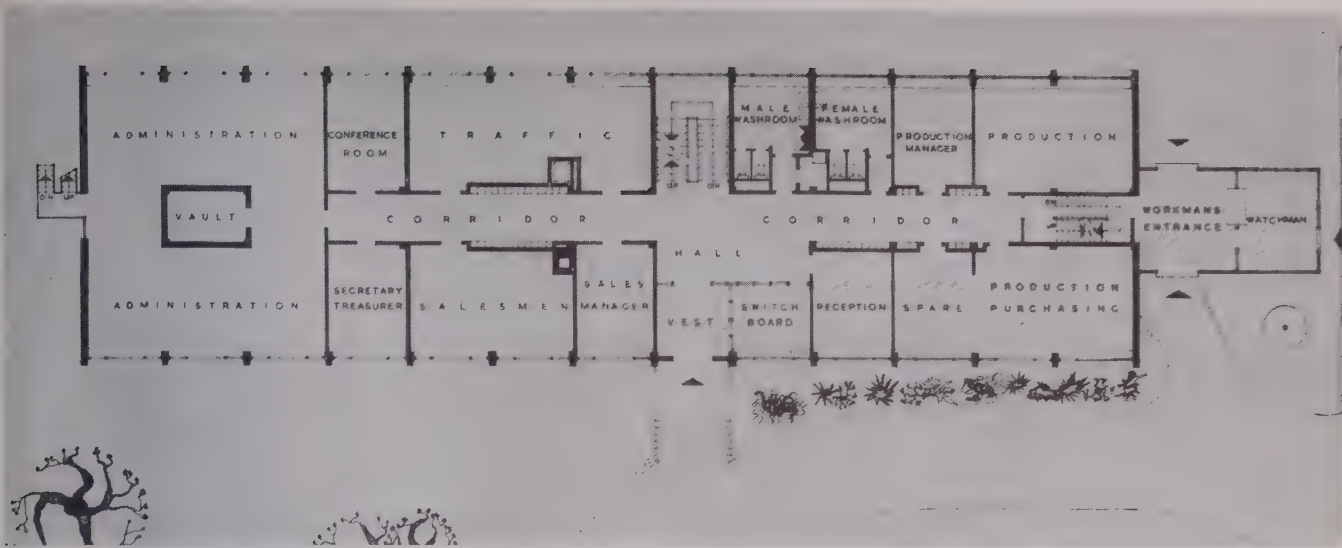
The brand new office building for the St. Lawrence Cement Company accommodates the Head Office staff at their new plant located off No. 2 Highway near Clarkson, Ontario. It is designed as a simple rectangular two-storey unit with a full basement. The structure is entirely reinforced concrete — thirteen bays each 12'-0" wide with full windows between tapered fin columns. Wall spandrels are finished in rich ceramic mosaic tile.

The building houses administrative and engineering staff, production and sales departments, executive offices and board room. Full cafeteria facilities are provided in the basement. A watchman's office is attached to the building and so located that it controls the plant employees' entrance, the main truck road, and weight scale.

Materials, as far as possible, are cement products — terrazzo stairways and plaster on block walls. Floor finish is white vinyl tile so that cement dust is not easily seen and all finishes have been chosen for easy maintenance and durability.

Ceilings are acoustic tile suspended and with recessed fluorescent fixtures in all offices. Windows are "Thermopane" with glare-resistant glass on the south and west exposures. Striking features include the open central stairway with individual treads cantilevered from the walls and the exterior stair on the west wall of the building incorporating the use of treads cantilevered from a central string. The building is air conditioned throughout.

HUGH ROBERTSON-PANDA



First floor plan

Architects, Pentland & Baker

Structural Engineers, Wallace, Carruthers & Associates Ltd.

Mechanical Engineers, Leah, Kobayashi & Associates

General Contractor, Matthew L. Carroll Ont. Ltd.

HUGH ROBERTSON-PANDA



The main stair



Executive office

View of kitchen





The entrance to the building

The Mercantile Bank of Canada Vancouver, British Columbia

Architects and Engineers, McCarter, Nairne & Partners:

Mechanical Engineer, D. W. Thomson

General Contractor, Smith Bros. & Wilson Ltd.



GRAHAM WARRINGTON

The principal elevation on Burrard Street



The bar area, looking towards the main entrance

Public space looking towards main entrance



Early Buildings of Toronto

BY ERIC W. HOUNSOM

"Miss Russell's room took fire but was soon extinguished by taking up two of the boards. The fire began by a small coal getting between the curb and the boards. It burned through the double floor before it was perceived."

Wilcox Diary, 1803

"In 1812 there is a record of bail being refused to a person charged with breaking in Elmsley House and taking locks and hinges off the doors and lead weights off the sashes."

Magistrate Jones

"Tenders wanted for materials to rebuild Fort York."

Upper Canada Gazette, 1815

"It is impossible to describe the confusion of this house. We have added a storey which gives us five bed chambers and a drawing room, the size of the dining room. The carpenters are this day laying the floors and we are covered with dust and stunned with noise."

Letters of Mrs Dummer Powel, 1817

BY SUCH ISOLATED RECORDS we may form an impression of Toronto building in the early eighteen hundreds. There are houses being constructed in Ontario today without double floors or sash balances.

With the extraordinary growth of Toronto — some say the fastest growing city in America — we are fast losing any conception of the city of 1900, or of 1850, or of the early eighteen hundreds.

It is of great significance on our road to becoming an important nation, that we are increasingly interested in the origins of our own culture. For generations we were satisfied to take the view that the culture of the British Isles was our own. Today we are forced to realize that the sands of this attitude are running out. There is no doubt that future generations will be even more aware of our own Canadian tradition and history, which to them will overshadow that of Britain. While our neighbour, the United States, became an independent nation with one war, we have become one gradually, but no less surely. We note in the United States, such men as Washington and Lincoln have increased in stature in proportion to the growth of their country. This is also true of her culture and tradition. We are confident this pattern will be repeated in Canada.

As architects, it is our privilege to broaden our history by rewriting it from our own viewpoint. In this short article on Toronto we will touch upon only one period, the beginning. To prevent vagueness, we will make that period 1810.

In that year, Toronto (called York until 1834) was fourteen years old. The site was selected by Simcoe, the governor of the new province, who had personally explored the whole north shore of Lake Ontario before he selected

the location for the town that was to be the new seat of the provincial government.

1810 was the beginning of our modern age and it began in a much smaller world than today. In millions the population was: France — 30, Britain — 18, the USA — 8, and Canada less than one half million, with ninety thousand of those in Ontario. This totals less than 22% of the population of those same countries today. Although it was forty three years before the first railroad in the province, there was a Canadian-built steamship on regular passenger service on the St. Lawrence. The first Ontario bank was to come in eleven years. House numbering was to wait twenty years; the first trunk sewer, twenty-five; illuminating gas, thirty-one; water, thirty-three, and professional fire fighting, sixty-four years.

If we select the greatest single factor influencing the period in North America, we may say that it was an age in which the common man had become electrified at the prospect of owning land. Land hunger is given by one Canadian historian as the basic cause of the war that was to come two years later and the reason why most of the land fighting was in Ontario. He presumes it was no coincidence that the War of 1812 came when the nearest American location for cheap land was west of the Mississippi River — Ontario was nearer.

After centuries of vassalage and tenantry, an emigrant could now stand upon a hill and see stretched before him a forest area, as large as a gentleman's park, which he had purchased for a nominal surveying fee.

The fruits of faulty surveying, the buying and selling of land, made law the dominant profession in 1810. In fact, we had one medical doctor in Toronto who turned to law because he could not make a living at his own calling. The country was not ready for architecture as a profession. Although the design of the first St. James Church is ascribed to an architect, Von Mole Berczy, it was forty years later, in 1834, that we had John G. Howard who is considered the first resident architect.

With the exception of the few government servants, the storekeepers, some tradesmen and the few professional men, a man's success depended upon his ability to cut down the forest and make the land productive. Even trees of furniture wood were burnt where they fell in the race to harvest the first crop of grain.

In that year, 1810, the neat package of streets of 1796 was already being called "Old Town" as larger blocks were opened to the west. At the north limit were the three thousand acres of "Park Lots" to prevent the town from taking on a "straggling appearance". There were already a few fine residences upon these lots.

For the information of new Canadian architects, there were no hostile Indians in Ontario at the time of the founding of Toronto. The unfinished Fort York and the blockhouses surrounding the town were not for Indian attack. They were for the Americans, who had been potential enemies since the Continental Congress of the American Revolution, which intended to include the whole of North America. There was, however, a storehouse for Indian treaty presents.

The population was about six hundred, not including the British soldiers of the Garrison. There were about fifty houses, eleven shops, three or four hotels and a boarding house. The Garrison (later, Fort York) had numerous buildings within the stockade and many others, including a military hospital, outside.

The buildings included the two Houses of Parliament (originally planned as wings for the Lieutenant-Governor's residence), Court House, government owned storehouses, privately owned storehouses for grain and furs, shipbuilding works, post office, jail, brewery, printing office, bakery, tanyard, wagon factory, metalsmith and the numerous small buildings used by carpenters, furniture makers, etc. Rooms were rented, or portions of private houses were used by cobblers, tailors, hatmakers, etc. We must also mention that the "backyard" of 1810 had its collection of stables, woodsheds and roothouses.

Basic industries were not encouraged by Britain, but of necessity, Toronto was already a manufacturing and distributing centre on a small scale.

It was a period, in Toronto, of very low taxes but little public service. The gravel on the roads and the plank sidewalks of 1820 had to wait until those who had fled from taxes learned to accept them again. With good reason it was called "Muddy York". The footpaths were earth, except where some disgruntled resident had placed planks across some obvious puddle, or had laid a few flagstones at his door. Only two buildings were of brick. The remainder were clapboard on frame, clapboard on squared logs, or logs. It was a town that appeared to have sprung up overnight in the wilderness. We can take the view that it was a "dirty straggling village" (Dr Wm. Dunlap, 1814) or, "a pleasant little town" (P. Finan, 1813). Our opinion is that there was interest and variety but little beauty in 1810.

There were no architects. Knowledge of architectural design, however, was not lacking. Such handbooks as Campbell's "Vitruvius Britannicus," Batty Langley's "Builders' Jewel" and "Builders' Chestbook" (1746) and Gibbs Book of Architecture (1728) were owned by talented and ambitious carpenters who were the architects of their day. Such men were at times contractors and workmen. In both offices, however, they lacked authority and a successful building often depended upon the taste of the client — which, we may add, is still true to some extent today.

Generally, this early architecture was not equal to that in the settled parts of the United States. The first buildings in Toronto were constructed for government servants and storekeepers who had moved from the town of Niagara, forty miles due south across Lake Ontario. With no buildings in the new town to form a precedent, the plan

and appearance were often dictated by the owner. We see in illustrations No. 2 and No. 3 how the well-proportioned elevation of the master carpenter became the house the owner wanted. Secretary William Jarvis was originally a Loyalist officer from Connecticut and had been entertained, no doubt, in some of the finest houses in that State. It is probable that he accepted the town law regarding plank fences on the street line without question, for they shut out the view of the stumps, the mud and the weeds from the street. Why should a perfect elevation face such a view? He spent his money on the interior of the house and upon his garden.

The writer visited a friend in a fine "colonial" summer home in Cape Cod, USA, who said that he had not used an architect to design his house. He explained that a neighbour gave his carpenters permission to inspect the architect designed house nearby as they worked. In the new town of Toronto, there were no good buildings to inspect and no possible public censure for deviating from good design.

Public Utilities and Services

There were, of course, no public utilities in Toronto in 1810. Even the first public well did not come until 1823. Some had wells, but most townspeople secured their drinking water from the Don River or the nearest creek. The majority went for it with buckets; the more prosperous had carters deliver it to their doors. Everyone had a cistern of some kind.

As previously mentioned, there was no street lighting, no sewers, no public garbage disposal. The townspeople sold their fireplace ashes for export to Britain to be used in the manufacture of potash and burned or dumped their garbage. From our modern perspective it is hard to realize to what extent water was used for transport. Two large commercial wharves and a military wharf were not out of proportion to the size of such a small lakeport. There was a lighthouse on the Island (still existing) and bridges over the Humber and Don rivers. The Humber was also spanned with a crude ferry boat. Townspeople set their watches at noon by the twelve o'clock gun from the Garrison. The town had a fire engine, manned by volunteers, and a regulation that each building must have two buckets, with the owners' name printed on them, ready for use. There were no actual building regulations and, of course, no building permits.

Planning

Most houses of medium size had a "square plan", as shown in illustration No. 2, with four rooms on the first floor and five on the second. A cottage might have its centre entrance opening directly into a large room that served the purpose of living room and kitchen, with a steep open stair to sleeping attic above. The smaller room on the first floor served as a bedroom. Apparently there was little study given to space requirements for all rooms could be of uniform size, excepting the front room in the stair hall on the second floor. Although shallow closets were coming into use in the eastern United States in 1810, there were few in Toronto. A moveable piece of furniture called a clothes press was the universal clothes storage.

We see on sketch No. 2 that the front wall windows were not always spaced to suit the rooms.

The cellar, of course, was not used for heating. In size, it was anything the owner or builder considered necessary. Sometimes it covered the whole building, or main building area; sometimes it was a pit in the earth, with trap door and ladder access, or by an outside stair from grade of stone or wood. It usually had a dirt floor. As the first floor was often less than a foot above grade, the cellar was often lighted by only one dark area window.

The dirty wood keg, of many sizes, was the universal container for transport and it held everything from pork from Ireland to snuff from England. These were stored in the cellar. Some fruits and vegetables and some firewood was also stored here but most houses had garden root cellars and woodsheds.

Many professional and businessmen had an office in their homes on the first floor. Often there was a bedroom on this floor; sometimes a library on the second. The distinction in the use of floors was not as great as in the immediate past.



1
1801



2
1807



3
1807



4
1812



5
1815



6
1802



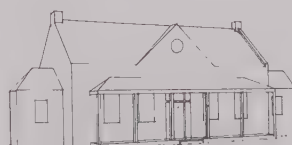
7



8
1800



9
1800



10
1800



11
1800

The kitchen was a large room — often the same size as the living room. It contained a wide fireplace with one or more bake ovens. There was usually a “dry sink” under the window. The kitchen of 1810 had no built-in cupboards comparable to those of today. However, as all generalities are wrong, perhaps we should assume that a few ingenious carpenters or owners contrived something resembling the modern cupboard. Only ten percent of the inhabitants were listed as servants — much lower than in Europe. The Pilgrim Fathers of the Eastern United States had even fewer servants. In visiting their residence museums, we are impressed with the ingenuity shown in conserving space in their efforts to make a dozen adults

and children comfortable in a building as large as a seven or eight room house of today.

In these Pilgrim houses we see chairs that double as tables, trundle beds (beds that pull out from under the main bed), hinged beds that fold up against walls during the day, high backed fireplace benches that double as draft screens. This same ingenuity must have created some time-saving kitchen planning in a few houses, at least, in Toronto. Lacking proof of this, however, we must say that the open pine shelving was never built-in, but stood upon the floor or was hung on the wall.

Excavation and Masonry

Excavation, of course, was by hand and little equipment was required to dig the small cellars. Stone was used for cellar walls and footings. It was usually secured from the lakefront. If the owner had the time and money, it was brought from the mouth of the Humber River (now in Metropolitan Toronto) on scows. For one building, at least, it came forty miles away, from the site of the present city of Hamilton. Fireplace masonry was usually

Sketch No. 1 Diagrammatic perspectives of eleven Toronto buildings. Eleven more would reveal an even greater variety of mass and roof treatment. Most of these buildings had box cornices and window shutters, which are not indicated. An attempt has been made to reproduce the original artist's perspective vanishing points and scale although it is evident that in some cases the dormer windows are too close to the windows below. All these buildings are residences except the following: 1) Hotel 2) School — the glass front was added when altered into a store in 1807 3) Store and residence 9) Store and residence.

brick. The little brick used came from Oswego, in New York State. One brick of the period measures 9" x 4 1/2" x 2 1/4" in size.

Carpentry and Millwork

The first timber cut commercially was masts for the Royal Navy: then came squared timber for export. By 1810, an increasing amount of lumber was being produced for domestic use and there was a sawmill on the Humber River using a "muley" or up and down saw. The circular saw was to come thirty years later. Some boards, however, were still being produced by "pit sawing". As wood was plentiful, many buildings were built of squared logs with dovetailed corners and then covered with clapboarding. Timber framing was also used. Although the finest hardwoods were available, pine was generally used for floors and trim. In the fast growing town, speed and economy did not permit the fine woodwork that was to come ten or fifteen years later. Floors, trim and stair were usually painted.

Roofing and Sheet Metal

There was very little sheet metal in 1810 and the cost for use as flashing, gutters and downpipes prohibited its use on all but a few expensive buildings in the United States and English speaking Canada. We must, however, except the province of Quebec, where churches and some commercial and public buildings were roofed with sheet tin as early as 1750.

Rainwater found its way to the ground over the edge of the roof. Wood troughs, a few feet above grade, were often used to carry roof water to cisterns. With no flashing, simple precautions as raising the roof around chimneys were standard practice.

The hand split cedar shingle, eighteen inches long, was in common use. Settlers were still using bark and hollowed basswood logs, laid tile fashion, on barns and temporary or small buildings. It is interesting to note that on many roofs the shingles were nailed to wood strips and not to decking. It was thought that shingles nailed to boards would rot through dampness.

Lathing and Plastering

With the exception of the few buildings of undressed logs, all buildings were plastered. The wood lath was one inch wide by three eighths in thickness, if one example from a contemporary building in Ontario may be taken as a guide.

Glass and Glazing

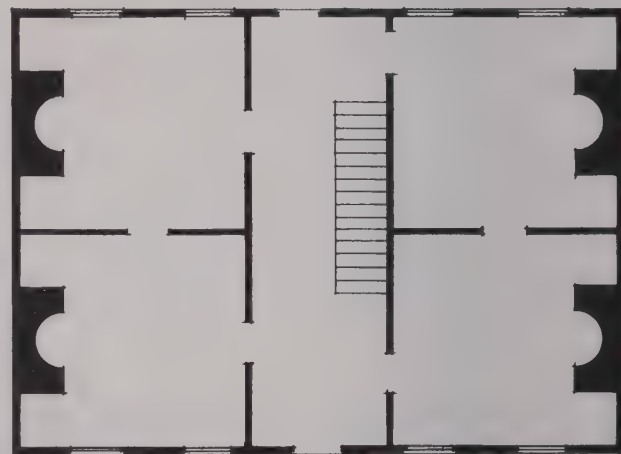
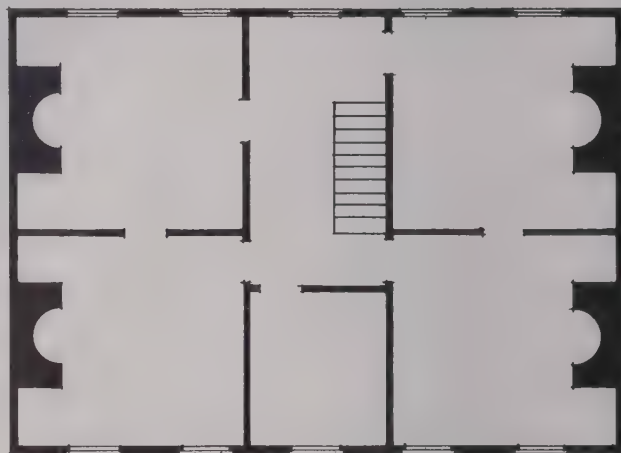
All glass came from Britain and to assure minimum breakage during transport, the panes were a standard small size. This one factor gave a uniform and pleasing scale to buildings of the period. This glass had a faintly bluish tinge and was not uniformly transparent due to imperfections in its manufacture.

Painting

Although paint was available, the colours were limited. Most buildings were white. A few were painted blue or grey. Whitewash was used for fences and minor buildings. Sometimes the exterior never got painted at all which aroused sarcastic comments from European travellers.

Plumbing and Heating

Our ancestors have left little information pertaining to



Sketch No. 2 Proposed residence for Secretary William Jarvis, copied from original one eighth scale drawing in ink and wash. This was submitted with cost estimate and was probably the only drawing of any kind used in the erection of the house. See sketch No. 3 for illustration of house as actually built.

earth toilets. We have before us a measured drawing and photograph of one in Danvers, Massachusetts, which was built before 1810. This residential double privy, about eight feet square, had doors for both sexes on the same elevation. It accommodated seven persons. We may assume that, before the age of Pasteur, all such buildings



Sketch No. 3 Sketch of the William Jarvis residence, built 1794-95. This house, 30 feet by 41 feet, was one of the first and, at the time of erection, was the largest. It was built of white painted clapboarding over squared logs and was plastered and finished inside.

Note the change from the original plan and elevation. The windows are smaller and their location on the gable end indicates a drastic change to the plan with stair to attic. We also note that the owner did not wish to spend money upon the fine Georgian entrance. In the interior, however, the straight run stair was changed to what a contemporary writer describes as "a handsome flight of winding stairs". The wing was added at the time of erection and an open porch at the rear (not shown) was added some years later.

were close to or adjoining the house, rather than in the sanitary but more public location at the back of the lot.

The kitchen sink was a "dry sink" of wood, about four feet long, two feet wide and six inches deep, which held the washing pan and the soiled dishes. It is interesting to note that the William Harlow House in Plymouth Mass., 1677, has a shallow stone sink which actually drained the water through the outside wall.

With the exception of the few box stoves, all buildings were heated with fireplaces. The fuel was cordwood, up to four feet in length. This wood was usually secured from men who purchased large areas of standing timber on the outskirts and cut and delivered their wood to customers in town.

The larger houses had fireplaces in bedrooms, as well as first floor rooms, but sleeping rooms were seldom brought to modern bedroom temperature. Live coals were placed in warming pans. They were similar to frying pans with lids and had long handles. After the pan had been passed between the bed sheets, the coals were deposited in the fireplace. Our ancestors did not expect much heat in bedrooms and we must remember, also, that they did not open their windows at night. We know that in Toronto, they kept windows closed in August as a precaution against "Lake Fever" (a mild form of malaria), for the night air was dangerous. Like quite a few of the unscientific customs of our forefathers, this was a successful expedient for it kept out the mosquitos.

Unlike most of the "colonial" of today, the fireplace

masonry and chimney was usually within the exterior frame to conserve heat. One gable end often served four fireplaces.

The cast-iron plate demountable box stove, with its classic ornament, came into use about 1805. It rested on the hearth. They were expensive and only the comparatively wealthy could afford them. They were never used in bedrooms. The few owners of these stoves were proud of their possession and we may be sure there was nothing incongruous to them in the appearance of a stove in an office or living room fireplace.

Charcoal was placed in tiny boxes called footwarmers. These were put into sleighs or carried into church — hence the box pew of early churches.

Lighting

The stock of 1,415 pounds of candles, owned by Fort York, was sold in 1822, so we may assume that at that time a superior form of lighting had at last supplanted the candle.

There was no other form of lighting in Toronto in 1810. The whale oil of the Atlantic coast was not used here. At this time, also, the second Covent Garden Theatre in London was using 270 candles for each performance, so we may assume that the humble candle was an almost universal light source. The "Mutton Dip" which used a wick in a saucer was the nearest approach to an oil lamp used in Toronto. Every household had candle moulds, although the more prosperous purchased theirs at the stores. Candles were used in candlesticks, in wall brackets and in lanterns for outdoors. Some of these lanterns were merely perforated tin; others were glass. Although the work day was regulated by the sun, house parties often lasted until dawn. Ernest students stayed up until midnight to study. The large fireplace of the time provided much of the light for sewing, spinning and reading.

Note: — The illustrations have been redrawn by the writer from the John Ross Robertson Collection in the Toronto Public Library.

Canada Packers Limited
Head Office
Toronto, Ontario

Architects, Fleury, Arthur and Barclay

Structural Engineers, Wallace, Carruthers & Associates Ltd.

Mechanical Engineers, Nicholas Podor & Associates Ltd.

General Contractor, Canada Construction Co. Ltd.

Elevation facing St. Clair Avenue

HUGH ROBERTSON PANGA





l of east elevation

Section showing glass sun visors

Bridge connecting new building with old office



HUGH ROBERTSON-PANDA

Stone Coping

Glass
Sun Screen

Stainless Steel
Window Frames

Flower Beds in
Crushed Stone

Stone Coping
Tile Drains

Field Stone

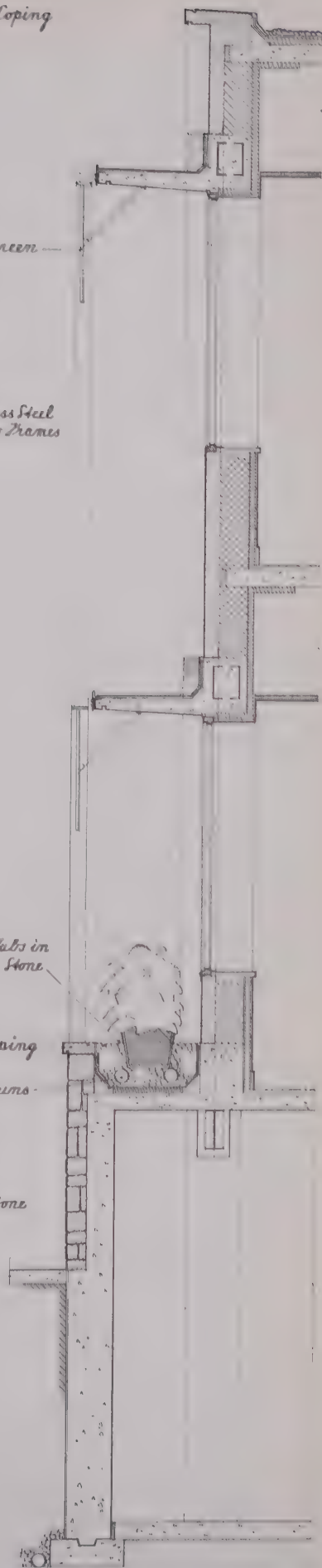




FIGURE 1. STAIRCASE, FIRST FLOOR



Plan of main stair at first floor

CLAUDE NORMAN PANDIA



The large Board Room

CLAUDE NORMAN PANDIA



First floor landing
Sand sculpture by Primavera

CLAUDE NORMAN PANDIA



Minor Board Room

Grandview Health and Welfare Building
Vancouver, British Columbia

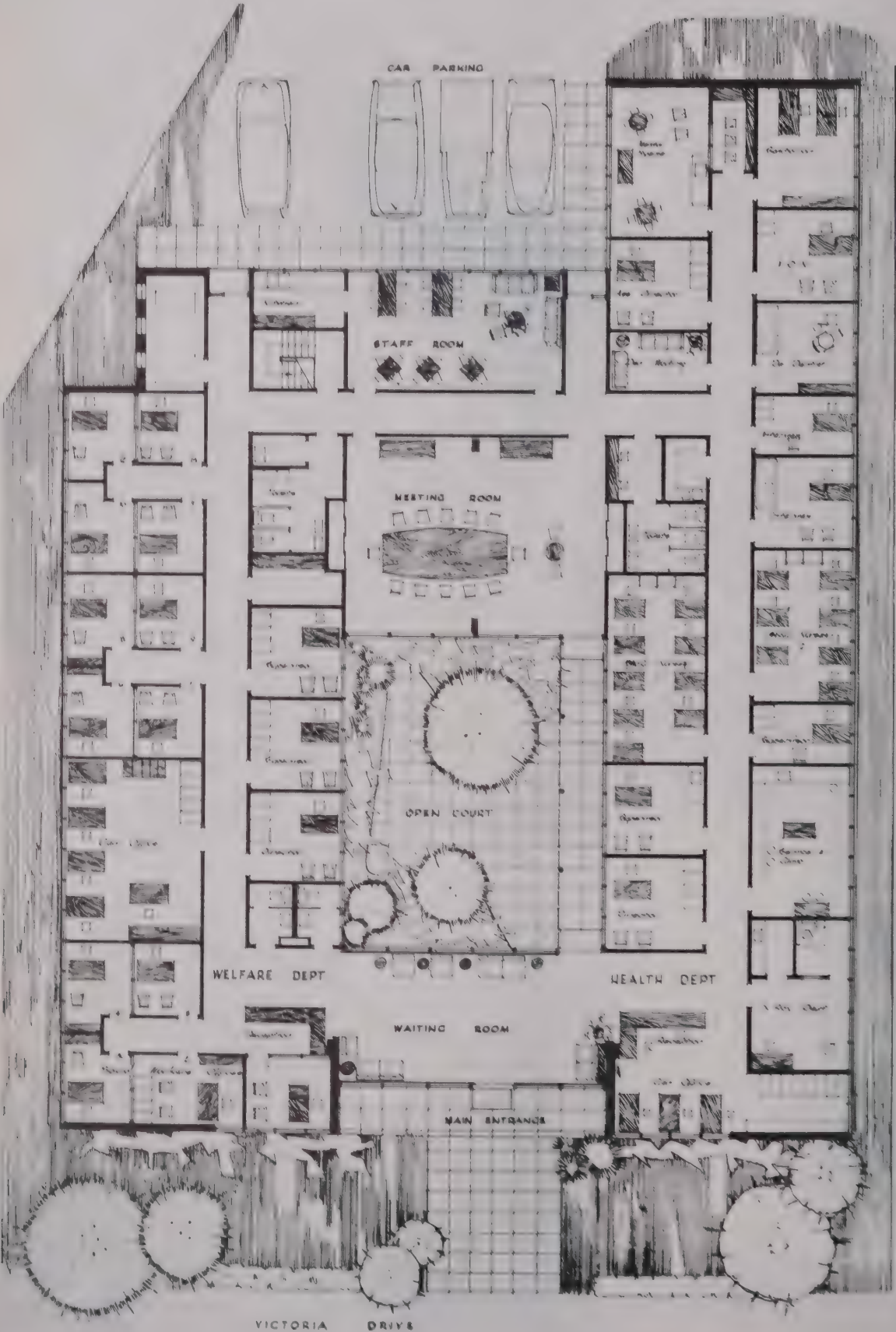
Architects, Underwood, McKinley, Cameron

Structural Engineer, P. W. Urry

Mechanical Engineer, D. W. Thomson

Electrical Engineers, Simpson & McGregor

General Contractor, Moncrieff Construction Co. Ltd.



View of main entrance
from Victoria Drive



View of waiting room through courtyard

The City of Vancouver, in order to improve its public health and welfare services for the citizens of the district of Grandview, decided to construct one building to accommodate these two facilities. The site made available for this purpose was level and triangular in shape and was situated in a residential area.

Our clients, the City Council and the senior officers of each department, informed us only of the building budget and the accommodation to be provided. From here on they put their complete faith in us as architects to design a building to meet these requirements.

Since most of the people who would avail themselves of the services provided by the building are elderly, it was a prime consideration that there should be but one floor at ground level. The resulting plan developed about the courtyard dividing the Health and Welfare Departments, linking them at the front by a common waiting room and at the rear by staff and meeting rooms.

As expected, the courtyard has proven to be the most pleasing feature of this scheme both as a light and sun trap and to retain the intimate scale too often lacking in this type of building.

The structure is of light steel and wood frame. Floor finishes throughout are terrazzo. Exterior walls are of aluminum modular construction with panels below and above the windows infilled with porcelain enamelled steel panels outside, plywood finish inside with a sandwich of rigid insulation between.



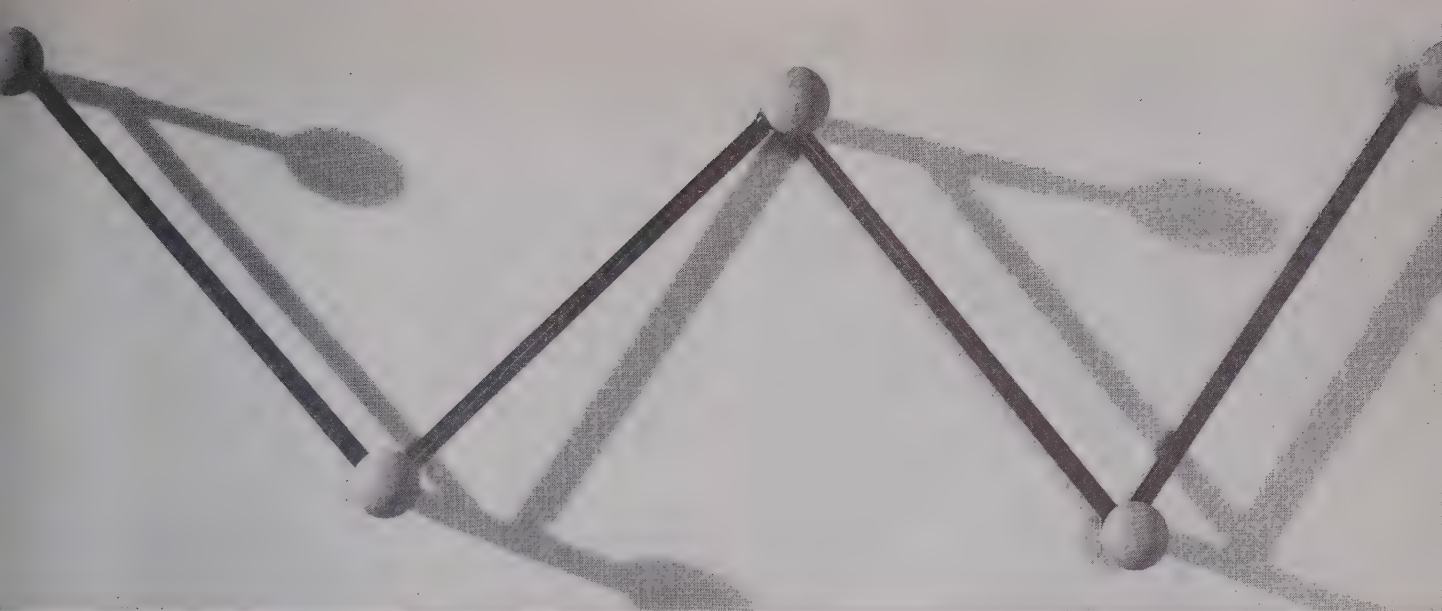
Detail of main entrance

Aluminum Company of Canada, Ltd.
Isle Maligne Works, Arvida, Quebec

Architects, Barott, Marshall, Montgomery & Merrett

*Structural design, Mechanical and Electrical work by the
General Engineering Department of the Aluminum Company of Canada, Ltd.*

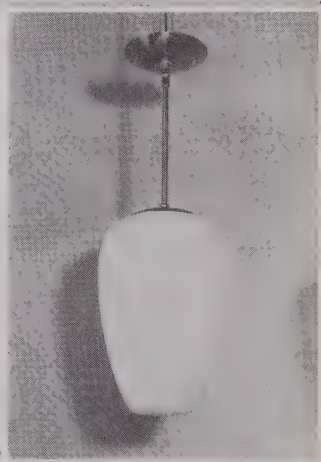




NATIONAL INDUSTRIAL DESIGN COUNCIL AWARDS

The products shown on this page have all won awards from the NIDC in 1957. They comprise a small selection of the complete range of winners which may be found in the National Industrial Design Council official catalogue published by the Design Centre, Ottawa.

Design awards are granted to Canadian products which are rated as outstanding in good design on the basis of appearance, usefulness and good value by the NIDC. The members of the Council include manufacturers, retailers, designers and representatives of consumer and government organizations devoted to encouraging good design in Canadian products.



1) Wall Coat Rack
Designed by C. S. Noxon

2) Executive Desk
Foreign Design

3) Walnut Waste Basket
Designed by J. B. Brook

4) Ceiling Lighting Fixture
Designed by H. Gottlieb

5) Stacking Chairs
Designed by J. B. Douglas

VIEWPOINT

Should the architect put the public's interest before the client's interest?

The answer to this must be unhesitatingly yes, for surely a concern for the common good is the hallmark of the professional man.

The architect's whole training is based on making the building function well for the public who are going to look at the building and the public who are going to use the building. Good manners and good taste on the part of the architect should consciously or unconsciously force him to take into consideration the impact that his design will have on its immediate neighbourhood.

I leave the question to the moralists as to whether the public's interests are being served when the architect is commissioned to design gaming houses, night clubs, saloons, etc.!

D. T. Dunlop, Toronto

A wit once said that the public never heard of an architect until Stanford White was shot. It has also been said "the public be d---d." So, I am all for the "client's interest". He is the one vitally concerned. It is his money, his enterprise, his gamble and he depends on his architect for a practical and economical solution to his problem.

The public shows very little interest in architecture, (they should, but they don't), just look around you and see the chaos. I am not referring to traffic, but the type of buildings that are permitted to be erected (some are actually designed by "architects"). The question might be asked "who is the public"? Is it the voice of service clubs, the Board of Trade, parents and teachers' associations or what have you? Are these bodies sufficiently versed in architecture?

What does considering the client's interest mean? Is it a satisfactory solution of his requirements, a safe investment, a monument to his ego; regardless of consideration to good architectural practice?

Who are the arbiters of what is good or bad in the theatre, movies, television, cars etc? The producers, be they authors, designers, or manufacturers, are concerned primarily with giving the public what it wants, or giving it to them whether they like it or not, by shouting loud and at frequent intervals, through the medium of advertising. (It sounds a good deal like brain washing). How can architectural critics (there must be a handful) sing praises or criticize architecture when the above mediums are denied to him. (RAIC Journal excepted).

It is therefore incumbent upon the members of the architectural profession to go all out on behalf of his client and let

his scholarship, experience and conscience be his guide, and be prepared to substantiate his decisions, if as and when public interest is aroused. In all other fields of endeavour where the reaction to a work by the artist or author is unfavorable, it can be destroyed, shelved or modified. Such is not the case with buildings. It is there for posterity to admire or resent.

The architectural profession, like other learned professions is a client and expert relationship. The architect's duty is primarily to solve the client's requirements, consistent with governing rules, regulations, by-laws etc. The client, in my opinion, comes first, last and always, providing, however, he knows what he wants. Otherwise, it is the architect's duty to steer him along the right path even at the risk of losing the commission, if he is not responsive to expert advice.

C. Davis Goodman, Montreal

An affirmative answer may be somewhat shaking to our clients. However, architects are constantly defending the public's interests by adhering to the basic tenets of good practice in design and planning and by adhering to the codes for safety and good health.

It must be assumed that the client is a law abiding citizen with the welfare of the community at heart and, therefore, generally his interest is the public's interest. Good public relations is so important to him that he is quite conscious of the public's interest.

One assumes the average client's basic interest is in all things affecting his pocketbook. (Beverage and insurance clients are not considered average). Sometimes codes and restrictions are a financial burden to the client, but that client will be in hearty agreement with those same codes and restrictions when they do not affect him. This has been particularly noticeable lately with all the new zoning by-laws in suburban areas. Land-owners welcome the protection of area planning until they attempt to develop their own land in a manner contrary to the by laws. Refusal brings condemnation of the local planning board, the government and the whole system. It is surprising how often these same by-laws benefit the critic in the future. This is not to infer that all regulations are perfect. The tremendous power given to public bodies today should be under constant vigilance. Flexibility and up-to-the-minute revisions of all codes is of paramount importance if they are, in truth, to represent the public interest.

The Board of Architectural Review in Hamilton pass judgment of many building projects and at times the applicant feels he has suffered hardship and injustice. However, in many cases the Board in furthering the public's interest has improved the applicant's project.

It would seem, therefore, that there is little conflict between the public's interest and the client's interest.

Alvin R. Prack, Hamilton

News from the Institute

CALENDAR OF EVENTS

British Architects' Conference, Oxford, England, July 10th to 13th, 1957.

QUEBEC

The mere mention of a masonry vault conjures up visions of dust and cobwebs with barrels of apple cider stacked within its deep and murky shadows. One of Montreal's best known architectural treasures, the Chateau de Ramezay, has just such a vaulted ceiling in its cavernous basement. We have all too few of these gracious reminders left of our colonial past. Commemorative celebrations of the 300th anniversary of the found-

ing of the first chapel of Notre Dame de Bonsecours will be held in the stone vaulted basement of Montreal's Chateau de Ramezay.

The mention of barrel vaults brings to mind a worthy cause which was founded in Montreal as recently as 1954. The Lake St. Louis Historical Society was established "to further the knowledge of Canadian History and Canadians generally, in a positive fashion aimed at strengthening our national consciousness". Among the projects which the Society has fostered is the Blockhouse Museum on St. Helen's Island which features Montreal in the year 1760. Another interesting project is the Montreal Military Museum also on St. Helen's Island. Both these museums are operated by the City of Montreal

during the summer months. Why not take your out-of-town guests to these historical showplaces of Montreal this summer?

Another project being carried out by the Society under the direction of one of our conferees, P. Roy Wilson, RCA, is a scale model of Montreal as it existed between the years 1740 and 1820. The City at that time was enclosed in an 18' 0" high stone wall making it one of the few walled cities of North America. It is intended that the model when finished shall be on permanent display in the Chalet on Mount Royal. Every Montreal architect should support the work of this worthy Society since the annual dues are only one dollar.

It is not only buildings that acquire lustre with the years but certain societies can grow in grace and stature with the years. The American Institute of Architects is celebrating this month their 100th anniversary in Washington with due pomp and circumstance. The Royal Architectural Institute of Canada is also observing its golden anniversary in Ottawa at a time when the grounds around the capital should be vibrant with the glow of tulip beds and luscious green grass. These important celebrations will be visited by many celebrated architects including the President and the Secretary of the Royal Institute of British Architects.

The barrel vault may not be a new form of construction but, in thought at least, it has been the means of spanning three hundred eventful years of Montreal's history!

*H. A. I. Valentine, Montreal
President of the PQAA*

LA SOCIÉTÉ DES ARCHITECTES DU DISTRICT DE QUÉBEC

Lors d'une récente réunion, les architectes du district de Québec étudient la possibilité d'organisation d'une fête en l'honneur des épouses des architectes. J.-B. Souey, parle d'une soirée intime (ladies night), le comité de réception est chargé de préparer ce cocktail.

Suit l'élection des directeurs de la Société, le président sortant de charge est nommé président d'élection; Robert Blatter est élu à la présidence tandis que Gabriel Desmeules est désigné comme vice-président, Noël Mainguy et André Robitaille demeurent respectivement trésorier et secrétaire. Jean-Marie Roy se voit confier la publicité, Germain Chabot le président sortant de charge, félicite les élus, il demeure, cependant, en fonction jusqu'au mois de février.

Des félicitations sont faites à M. Gérard Venne à l'occasion de son élection à la présidence de deux clubs sociaux: Les Lions, le Club de Reforme.

Le rapport de "Royal Architectural Institute of Canada, Executive Committee" est discuté longuement. Ce rapport a été préparé par A. J. C. Paine et se rapporte aux tarifs proposés au gouvernement Fédéral pour les services des architectes et ingénieurs.

Robert Blatter trouve l'échelle des tarifs proposée trop compliquée.

P. Côté dit que l'architecte travaille autant que les ingénieurs en mécanique car il doit coordonner les plans et il est légitime qu'il ait une part sur ce travail. Les ingénieurs sont nécessaires et il est juste qu'ils soient protégés.

G. Desmeules met en garde les architectes contre la tentation des ingénieurs de se faire payer directement par le client et ainsi diviser le travail au détriment du propriétaire. De plus G. Desmeules fait observer que chez nous le minimum est devenu le maximum.

A. Robitaille croit que le fédéral devrait reconnaître les lois provinciales et accepter les tarifs provinciaux. Aucune discussion ne devrait exister au sujet de nos tarifs. F. Caron approuve partiellement cette thèse.

R. Blatter pense que le tarif devrait être établi conjointement avec les ingénieurs.

Les membres sont d'accord pour reconnaître que notre tarif ne doit pas être subdivisé et que l'ingénieur doit être choisi par l'architecte et payé par lui.

P. Béland fait observer que le tarif proposé au rapport Paine est trop bas et qu'on ne doit pas avoir peur de demander ce qui nous est dû; il propose 7% minimum.

E. Piset résume en disant que le tarif de l'architecte doit être basé sur tout le travail, inclure les travaux de l'architecte et que celui-ci doit payer le tout.

L'on décide qu'une lettre doit être envoyée au Conseil de l'AAPQ afin de rectifier la décision malheureuse de l'exécutif de l'AAPQ qui a accepté le rapport "Paine".

Paul Béland parle de la prochaine exposition des travaux d'architectes du District de Québec. La date sera fixée sous peu, la salle est pratiquement choisie, et l'on est assuré d'une bonne collaboration de la part des membres.

L'on parle de monuments de glace pour le carnaval. Et la réunion se termine par une proposition de R. Blatter secondée par G. Chabot suggérant la fin des discussions.

André Robitaille, Secrétaire

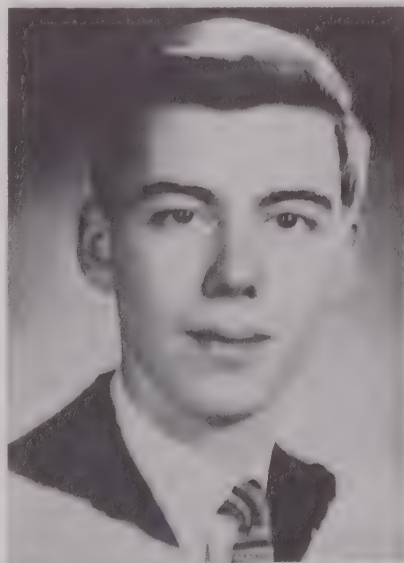
ALCAN ARCHITECTURAL COMPETITION WINNERS

Henry Fleiss of Toronto was adjudged winner of the first award of \$6,000 in the Alcan Architectural Competition for the design of a Sales Office Building. Second award of \$3,000 was won by Blankstein & Coop, Winnipeg, and the third award of \$1,000 went to F. Lebensold & J. Schreiber, Montreal. Four Honourable Mentions of \$500 each were awarded to Walter Agius, Toronto, Eugene Janiss, Toronto, Jean-Paul Pothier, Montreal, W. A. Salter and D. E. Flemming of St. Catharines.

The competition was conducted by Aluminum Company of Canada, Ltd. (Alcan) in accordance with the code of the Royal Architectural Institute of Canada. Seventy architects submitted sketch plans. Site for the proposed building is on the outskirts of Toronto close to the future Etobicoke Municipal Center. Estimated cost of the building is \$500,000.

Judges for the competition were: Messrs P. C. Amor (F), Montreal; A. F. Duffus (F), Halifax; H. H. G. Moody (F), Winnipeg; W. R. Souter (F), Hamilton; and J. H. Wade (F), Victoria. Mr Richard E. Bolton (F), Montreal, served as professional adviser.

PILKINGTON GLASS TRAVELLING SCHOLARSHIP AND AWARDS



Mr Carmen Cornell

Carmen Cornell, twenty-three year old Thorold, Ontario, architectural student at the University of Toronto, has won the Pilkington Travelling Scholarship with his conception of an extension to the Royal Ontario Museum in Toronto. Mr Cornell is the son of Mr and Mrs E. B. Cornell, Thorold.

Judging was in Ottawa the day before the 50th Annual Assembly of the Royal Architectural Institute of Canada. One judge, Mr Hart Massey, who won the Pilkington award in 1951, said "The opportunity that it offers for study and other benefits change a student's entire life overnight". This is the eleventh annual award of the scholarship which is open to students of the five architectural schools in Canada and pro-

vides the winner with \$1,500 for research in Britain and Europe plus travelling expenses to and from England. Second and third prizes are \$200 and \$100. Mr Corneil's entry was in competition with nine other submissions. Mr Barry A. Rand of the University of British Columbia took second place with his presentation of a Legislature for the Province of British Columbia. Third prize went to Mr Roger W. Smeeth, also of the University of British Columbia, for a Transportation Centre for Vancouver.

"The first prize winner's scheme was of a completely different nature from the others submitted," the judges said in a written report. "Mr Corneil chose an unusual and difficult problem — the extension of an existing building. His solution shows great architectural promise and a sensitive appreciation of the problems involved. He has shown restraint in working out the numerous details, and while the jury felt that some aspects required further consideration, the quality of the work was thought to be of a very high calibre.

"The second and third prize winners chose new buildings for their problems. The second prize winner, Mr Rand, chose an ambitious program and displayed a good deal of ability in his solution. At the same time, the jury felt that he was not entirely successful in his handling of the relationship between the various elements, and the scale of the central open space. The third prize winner showed considerable planning ability and sensitivity, but the solution was not considered to be of quite the same calibre as the former two."

The five judges were nominated by universities, with the Pilkington Company represented by one non-voting architect who acted as professional adviser. They were: Messrs W. H. Gilleland, Ottawa, University of Manitoba; D. F. Lebensold, Montreal, McGill University; Ian MacLennan, Ottawa, University of British Columbia; Hart Massey, Ottawa, University of Toronto; Paul O. Trepanier, Granby, Ecole des Beaux-Arts, and Victor P. Belcourt, Ottawa, Pilkington Glass Limited.

"CITY CENTRE" MURAL COMPETITION

Alfred Pellán, internationally known Montreal painter, is announced as the winner of the "City Centre" Mural Competition. Second and third prizes were awarded to Claude Roussel of Edmundston, N.B. and Joseph Iliu of Montreal, and Honourable Mentions to Eva Landori of Montreal and Ross Coates of Toronto.

The jury, composed of Dr Arthur Lismer, Mr Jacques de Tonnancour and Mr Harry Mayerovitch, made their selections from seventy-one designs submitted by thirty-one Canadian artists, and expressed their pleasure with the high professional level of the submitted works.

The projected mural, to be located in the lobby of the City Centre Building, City Councillors and Mayor Streets, sponsored by the Sternthal Realty Company, was designed to open possibilities for Canadian Artists to apply their talents to decorative media related to architectural works. The theme, "Time", evoked a number of interpretations ranging from the deeply psychological to the purely decorative.

PUBLICATIONS

The pamphlet of the RIBA Prizes and Studentships, 1957-1958, is available at the RIBA, 66 Portland Place, London W.1, for the price of 2s. 6d.

The Alberta Association of Architects announces that the book "Session '56" is available at the price of \$2.00 a copy from the Association.

POSITION VACANT

Established firm with varied practice in Hamilton, Ontario, seeks assistant with at least five years' office experience since graduation. Reply to the *Journal RAIC*, 57 Queen Street West, Toronto 1.

ARCHITECTURE AT THE ROYAL ACADEMY

LITTLE TO HOLD THE EYE

FROM OUR ARCHITECTURAL CORRESPONDENT

The architectural room at the Royal Academy is dull this year. In the past two or three years it had grown in liveliness, partly owing to the presence of a number of interesting models (there are only five models this year, and none shows a really important building) and partly to the presence of several designs possessing news value if nothing else.

One of the roles of the Academy exhibition is to disclose to the public what is about to be built on some central or important site. The only designs exhibited this year that come near to answering this description are the Piccadilly redevelopment scheme in Manchester (a group of office buildings vast in scale and of orthodox modern curtain-wall construction by Messrs. Trehearne and Norman, Preston and Partners), the nuclear power station at Bradwell by Mr. Maurice Bebb (a straight-forward enough, if not very distinguished, building that is likely to be criticized more for its siting than its architecture), and the restoration schemes for some Wren churches — unless we include a half-model of the new members' stand at Lord's by Messrs. Louis de Soissons, Peacock, Hodges and Robertson.

PLANS FOR FAMOUS SITES

Two far more famous sites are represented, but the designs that are to occupy these have already been disclosed to the public and caused much despondency among people who are in the habit of hoping that the new will be an improvement on the old. These are the Gaiety theatre site and the South Bank. Messrs. Adams, Holden and Pearson exhibit the office building they have been commissioned to build by the English Electric Company on the former site, with its overpowering central feature, built up over a huge false window looking down the Strand; and Sir Howard Robertson exhibits the tower of his stolid-looking stone-faced Shell building whose 25 storeys will dominate the upstream part of the South Bank.

Apart from the foregoing, the exhibition consists of the familiar medley of all the current modes of building, represented for the most part by watercolour perspective drawings which, as they have done for many years, fail either to describe their subject faithfully or to give pleasure as pictures in their own right. This year there is but one of Mr. Raymond Firth's exquisite drawings, which alone at the Academy render architecture informatively and sensitively. It shows his design for a new library at Lady Margaret Hall, Oxford.

This year church architecture is very much to the fore. About one-fifth of the exhibits represent churches; but they give little promise that architects are finding their way to a contemporary idiom in which religious ideas can be expressed with dignity and sincerity. They either try so hard to be original that they become freakish, or they resort to the tamest reminiscence.

It has been much complained of lately that universities, which ought to be setting a lead in all cultural matters, are particularly backward in the architecture they furnish for themselves. This is fully borne out in the exhibition, where Mr. John MacGeagh exhibits an elaborate but commonplace neo-Georgian scheme for Queen's University, Belfast, Messrs. Lanchester and Lodge a less conscientiously reminiscent but even cruder engineering building for Leeds, and Sir Hubert Worthington and Mr. Vincent Harris buildings in their own eclectic styles for Manchester and Durham. There are, however, signs of better things to come in Professor Basil Spence's vigorous new building for King's College, Newcastle, and Messrs. Playne and Lacey's chemistry building for Birmingham.

The above is an example of architectural criticism from the London "Times".

CONTRIBUTORS TO THIS ISSUE

During a trip around the world, Gilles Gagnon, Montreal architect, stayed in Chandigarh for some time. There he met Le Corbusier, architect and town planner; Pierre Jeanneret, his close collaborator and many others who assisted them. Mr Gagnon, professor at the "Ecole des Beaux-Arts de Montreal" has brought back many photographs of his own, some of which are published here for the first time. "This article sets forth all the inherent poetry of this new capital city and with the help of quotations

from Le Corbusier, it intends to illustrate the underlying principles of its design." Mr Gagnon asks that special thanks be given to Miss Jennifer Lee-Jones of the School of Architecture of McGill University for help in correcting this English version.

Eric W. Hounsom, of Albarda & Hounsom, Architects, Weston, Ontario, was trained as a draftsman in offices in Toronto, New York and Detroit. He was registered by examination in 1936 and specialized in theatres. His University Theatre, for Famous Players, was selected for the Exhibition of Canadian Contemporary Arts, 1950. He has written for Canadian, American and British professional and trade publications. His hobby is Canadiana, particularly life in Toronto during the war of 1812. Over a twenty year period he has collected a small library on the subject. He has come to the conclusion that the war was of far greater significance than generally realized. His article is from these notes.

BOOK REVIEWS

ITALY BUILDS by G. E. Kidder Smith. Published by the Architectural Press, London. 264 pages. Price 56/-.

This is another in the fine series of national architectural studies produced by the American architect-writer-photographer, G. E. Kidder Smith. As in the other books in this series it is distinguished by excellent photographs, pleasing format, and direct informative text.

Mr Kidder Smith approaches his subject in a thorough manner, setting the scene for the architect's work in a survey of the Italian countryside and city. This background material includes a study of the land and climate, and the various styles of folk architecture which have developed in the markedly different natural regions of the country. The distinctive folk building of the northern mountains and foothills, the central plains and valleys, and the southern hills and coastline are all beautifully presented.

The excellent section on the Italian City opens with a study of "Sites and Cities", an appreciation of the natural uses of terrain, followed by a detailed analysis, using photographs, diagrams and text, of the great Italian piazzas. All the famous squares are presented, such as the Piazza de Campo, Siena, the Piazza Signoria, Florence, and St. Mark's Square, Venice, as well as lesser known squares such as the Town Square, Portofino and Piazza Umberto, Capri. Other elements of townscape surveyed include "the Vertical Accent", "Changes in Urban Level", "The Italian Street", "Arcades and Galleries", and "Urban Fountains and Waters."

This section on Italian townscape impressed the reader as the greatest single contribution of the work. The superb subject matter is treated with sympathy and enthusiasm — a very clear visual image emerges, of amazing richness and strength. The author's photographic tour of the high spots of Italian cities is doubtless the next best thing to an actual tour of the cities themselves.

The balance of the book consists of a survey of the modern architecture of Italy. This is prefaced by an investigation of the immediate background of the modern movement, and the economic, political and social factors affecting it. Specific buildings are then presented with photographs, plans and brief explanatory text. Buildings presented include houses, multiple family dwellings, health centres, memorial architecture, exhibition architecture, shops, and industrial and transportation buildings.

By far the most outstanding works shown in the survey are the structures of Pier Luigi Nervi. An impressive presentation

is made of this great engineer's principal works — a display which without a doubt places him amongst the great constructors of all time.

Also worthy of special note is the post war exhibition architecture and the new Rome railway station. These works typify the freshness of approach and imaginative design that the author finds a chief characteristic of modern Italian work.

Coming after a splendid presentation of historic Italian cities the survey of contemporary architecture seems weak and spotty by comparison. This feeling doubtless stems more from the magnificence of the old than the inadequacy of the new; but on completion of the book this reader was left with the impression that only Nervi could hold his own with the masters of the past.

Although the new architecture fails to measure up to its illustrious ancestry in terms of city building and townscape, it does demonstrate an impressive freshness and imagination, and a unique ability to unify old and new without resorting to the dead hand of eclecticism. Mr Kidder Smith has once again created a beautiful and stimulating architectural travel book.

Raymond T. Affleck

CHOOSING A HOUSE DESIGN and PRINCIPLES OF SMALL HOUSE GROUPING. Published by Central Mortgage and Housing Corporation, Ottawa.

These publications should prove extremely useful to the general public and to builders and developers. The principles discussed in these booklets are generally sound and are the ideas that have guided good subdivision design in recent years. It is unfortunate that these booklets were not published much sooner and that the principles advocated in them have not been followed more often in the mass building program of the last ten years.

The booklet on *Choosing a House Design* cover the aspects of choosing a lot, siting, grading, house types, general and detail planning, appearance and landscaping as they affect the small house.

The booklet on the *Principles of Small House Grouping* covers such aspects as standardization and variety, relationship of house shapes, residential street layout, visual aspect of street design, street patterns, intersections, etc. Included also is a set of design examples prepared by a number of individual architectural firms.

The two booklets are intended as a general guide to the public and as such they should be extremely useful. Architects with some experience in housing will find little that is new in these booklets. No original solutions are produced, nor are any outstanding examples shown. Photographs might have been useful in illustrating some points made.

One thought came to mind as I read the booklet on small house groupings.

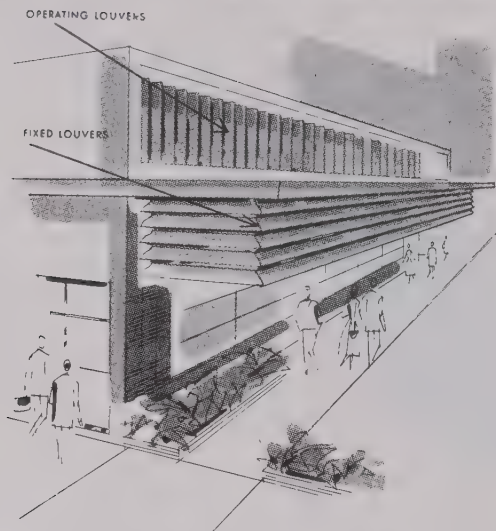
I have as yet seen no development of small houses on small lots which has completely succeeded in providing a complete architectural unity. Clarence Stein observes that the small house groupings at Radburn even with fully developed landscaping never created a completely successful architectural picture. (This statement was made in comparison with such projects as Chatham Village and Baldwin Hills Village, both row-housing schemes.) Architecturally speaking, the individual house belongs on a lot large enough to allow the house to read as an individual element in the landscape and not as a group. The small house is best treated architecturally as a group of attached units, the perfect examples can be found in the Georgian squares of London and in any mediaeval city. Nevertheless the small house on a small lot is a desirable social entity and, as architects, all we can do is make the best of it. On the basis of such an opinion, the suggested house groupings in the CMHC booklet can only approach a solution but can never completely succeed.

Henry Fliess

FACTS ABOUT GLASS

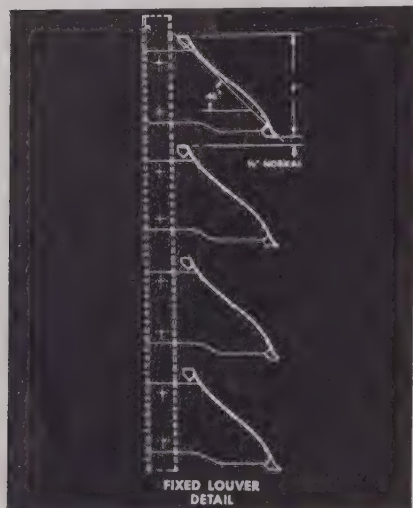
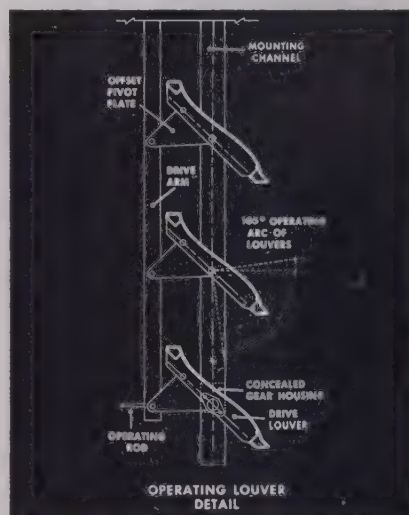
Vol. 6 No. 8

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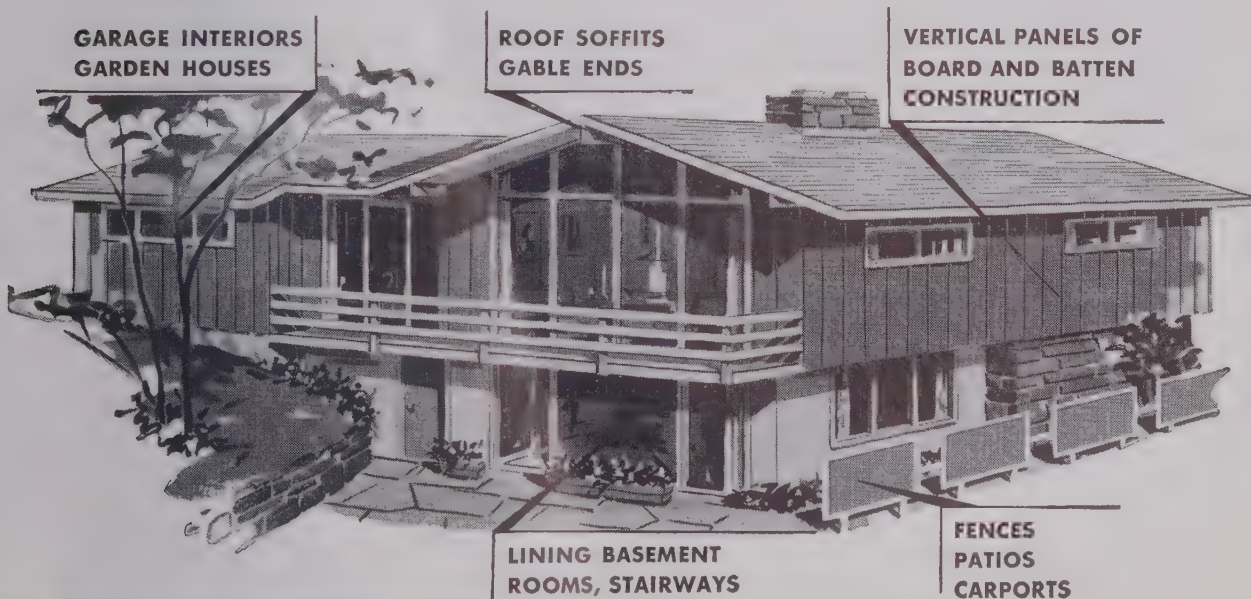
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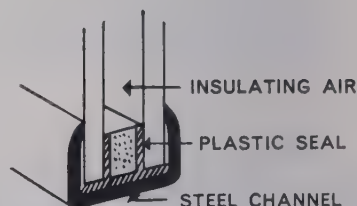
Designing Architects: Messrs. Dewar, Stevenson & Stanley;
Consulting & Supervising City Architects: R. F. Duke
& W. P. Pasternak;

General Contractors: Rush & Tompkins (Canada) Limited.

Twindow is made of *two* clear sheets of glass separated by an imprisoned layer of dry, non circulating air. Result: excellent insulation which lowers heating costs in winter and decreases the load on air conditioning units in summer. Twindow costs less to install than two courses of brick plus insulation . . .

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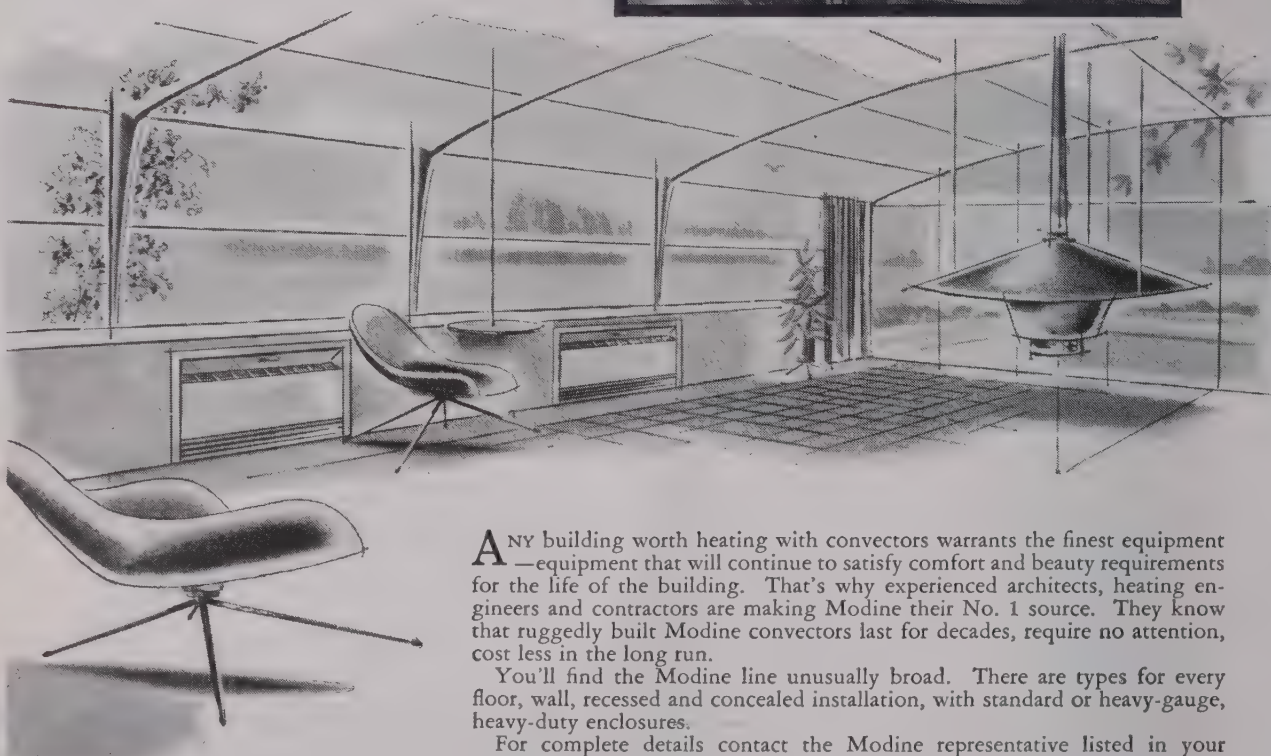
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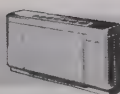


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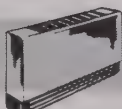
R-1352



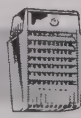
Airditioners



Convectors



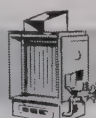
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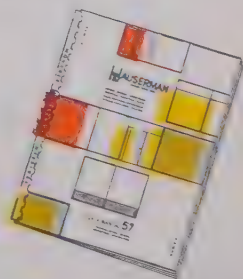
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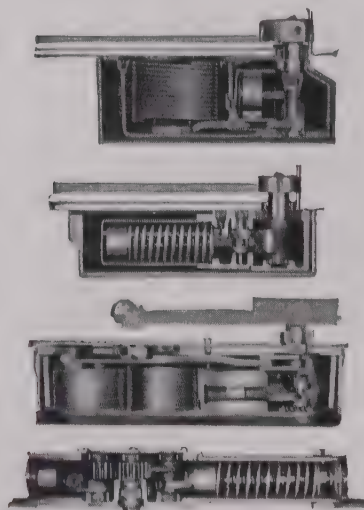
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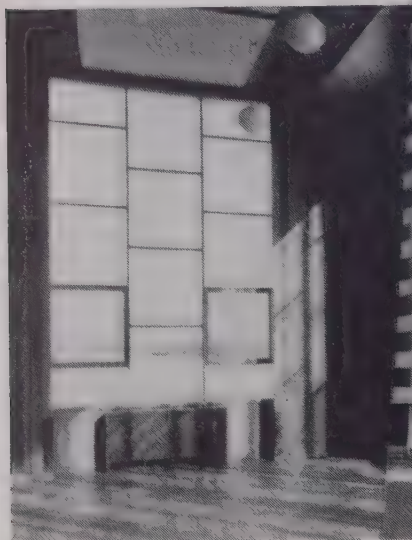
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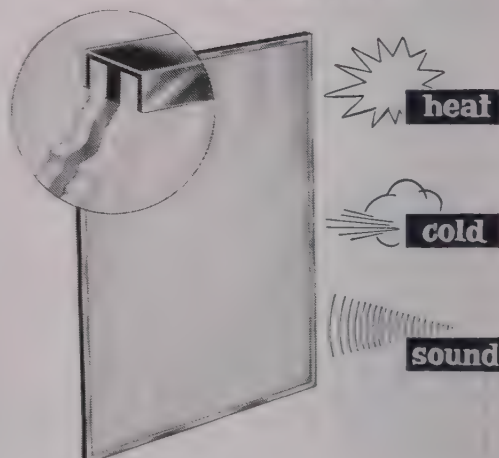
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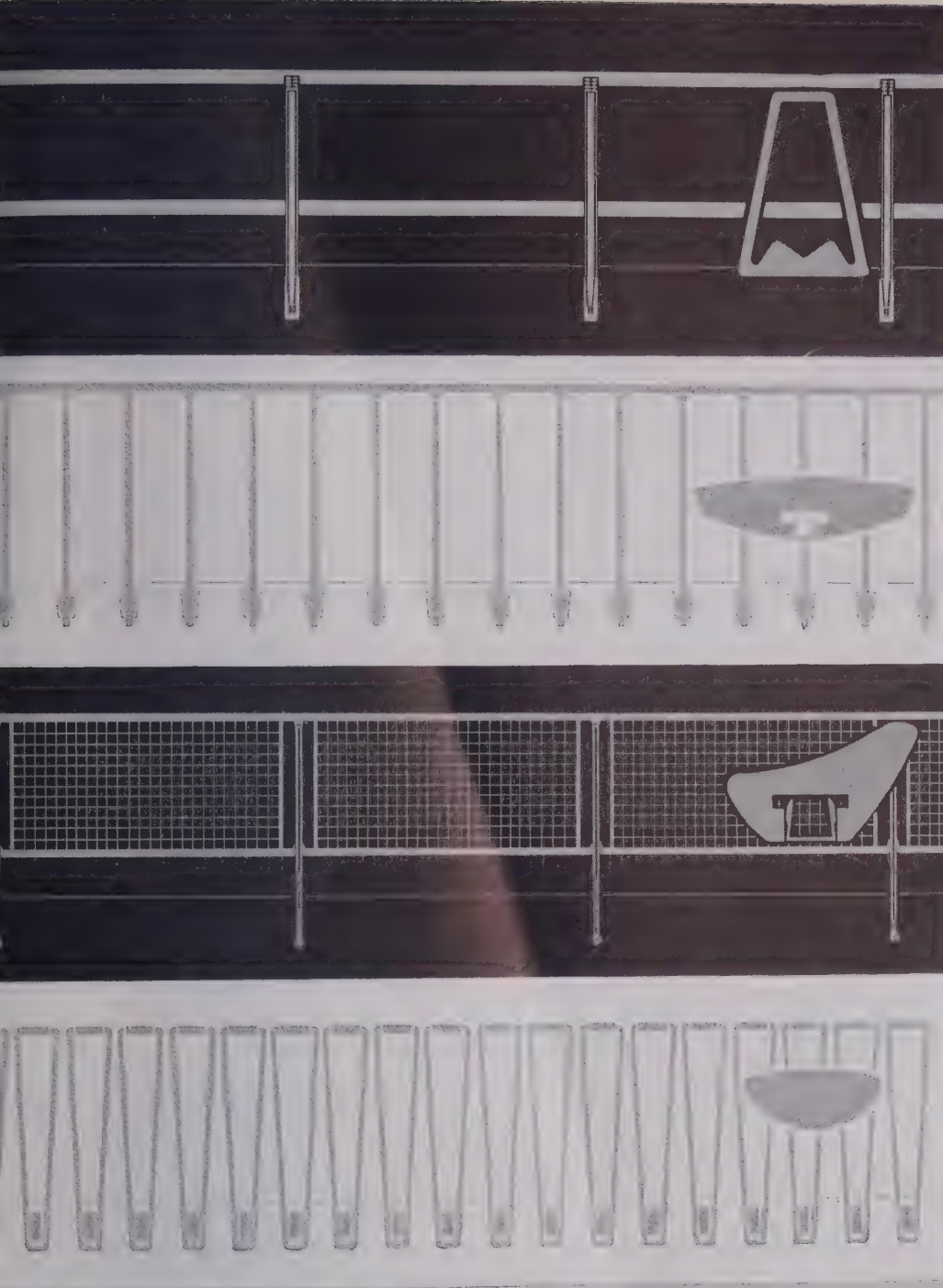
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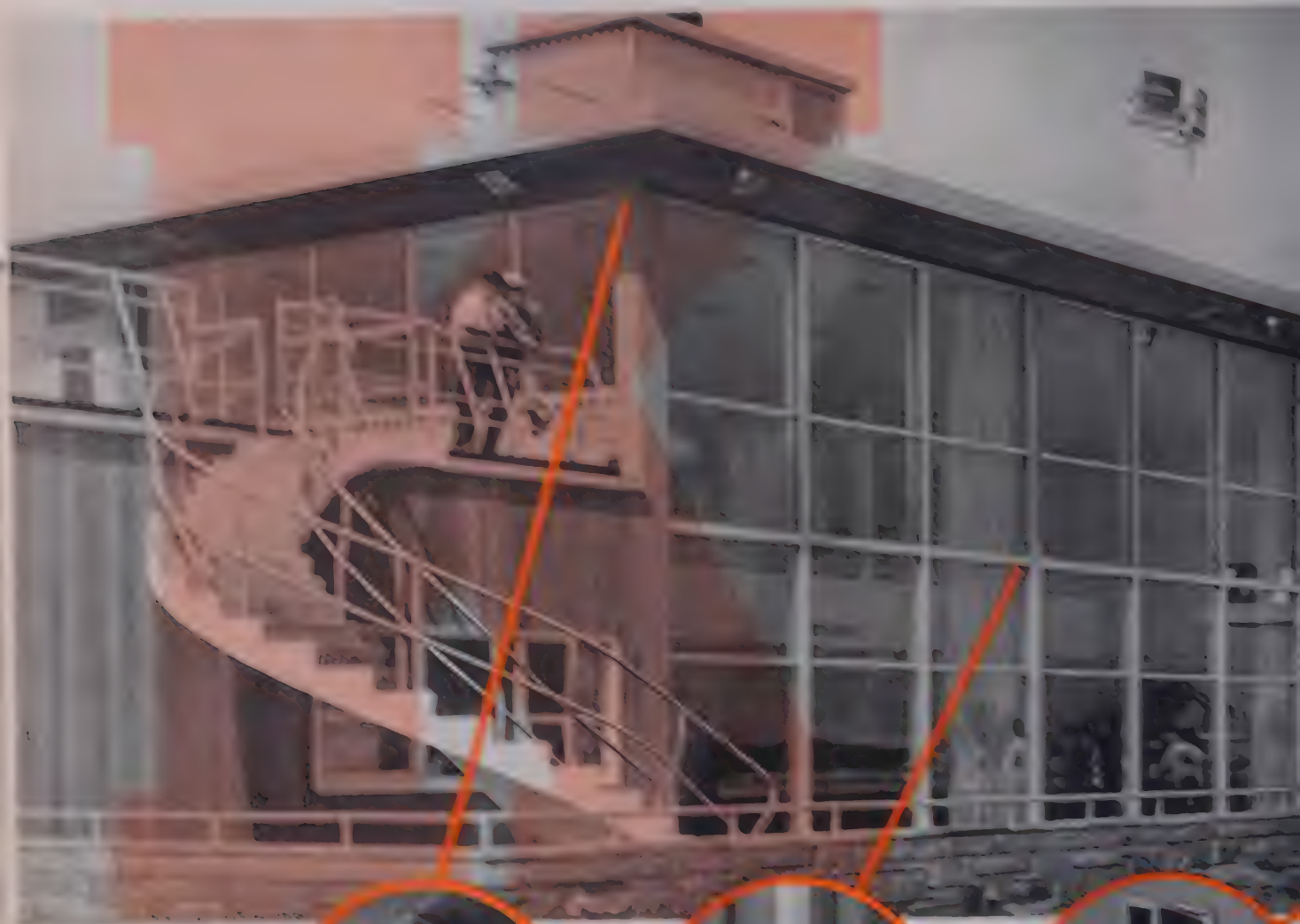
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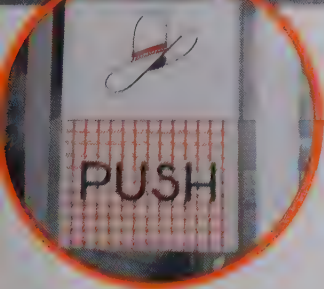
Frame sections are available with flush glazing or glazed with applied stops. Standard sizes range from 1/2" x 4" to 2 1/2" x 2 1/2".



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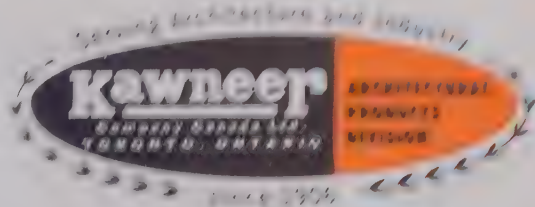
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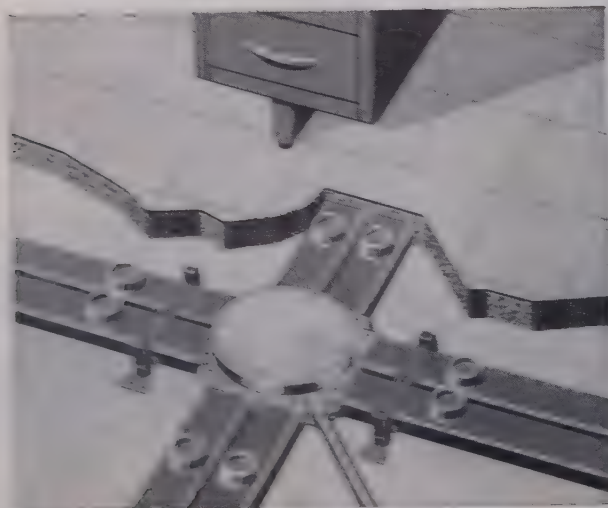
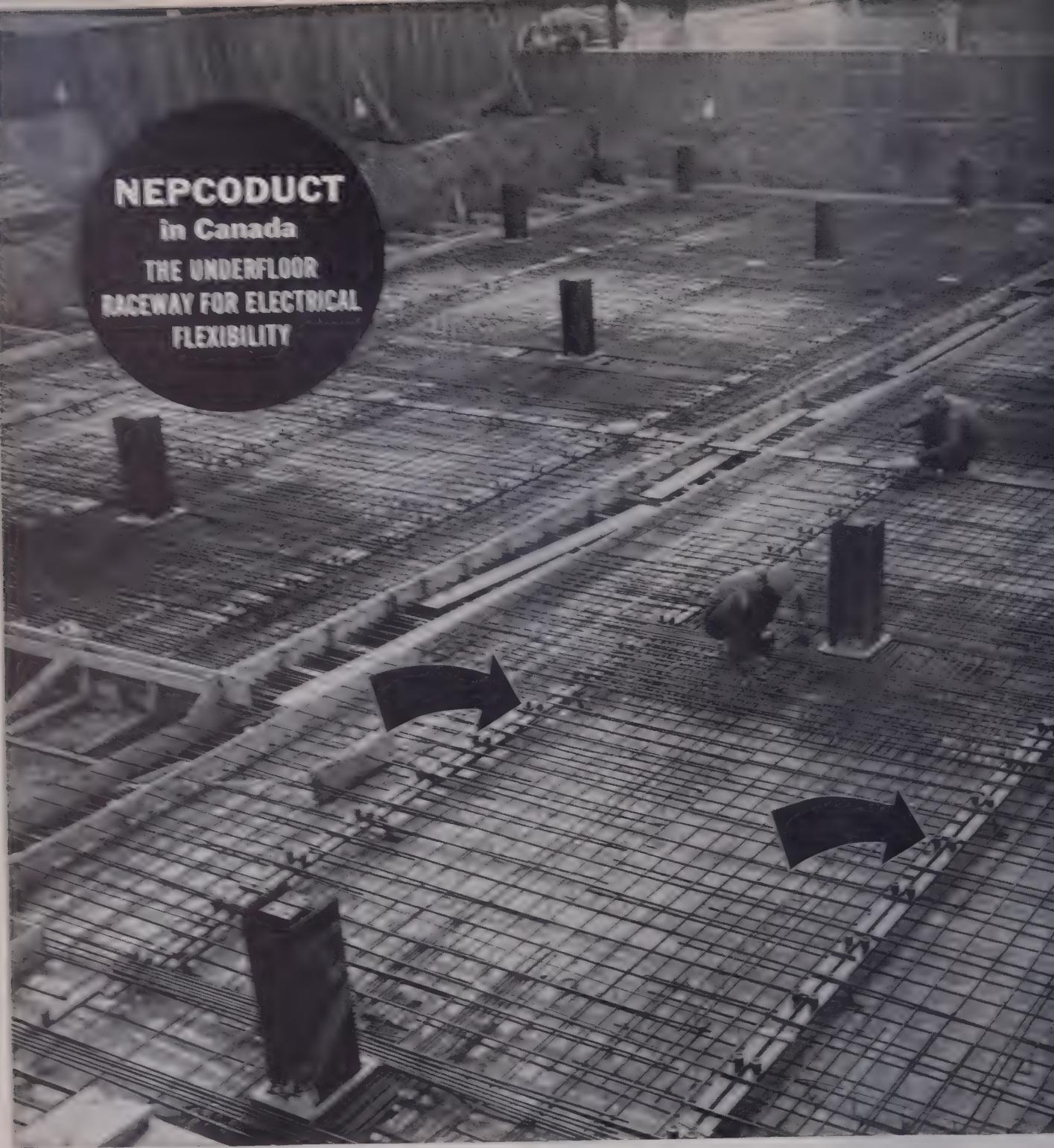
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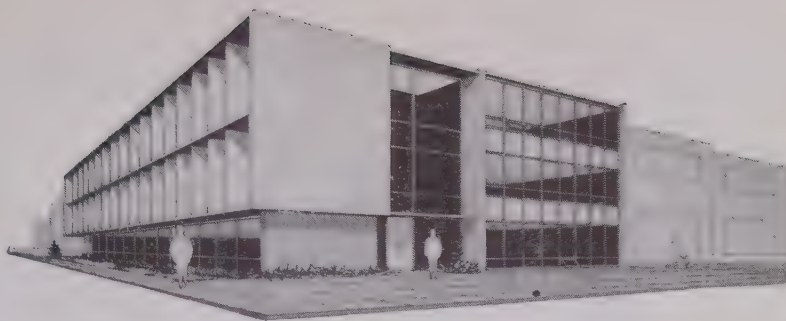
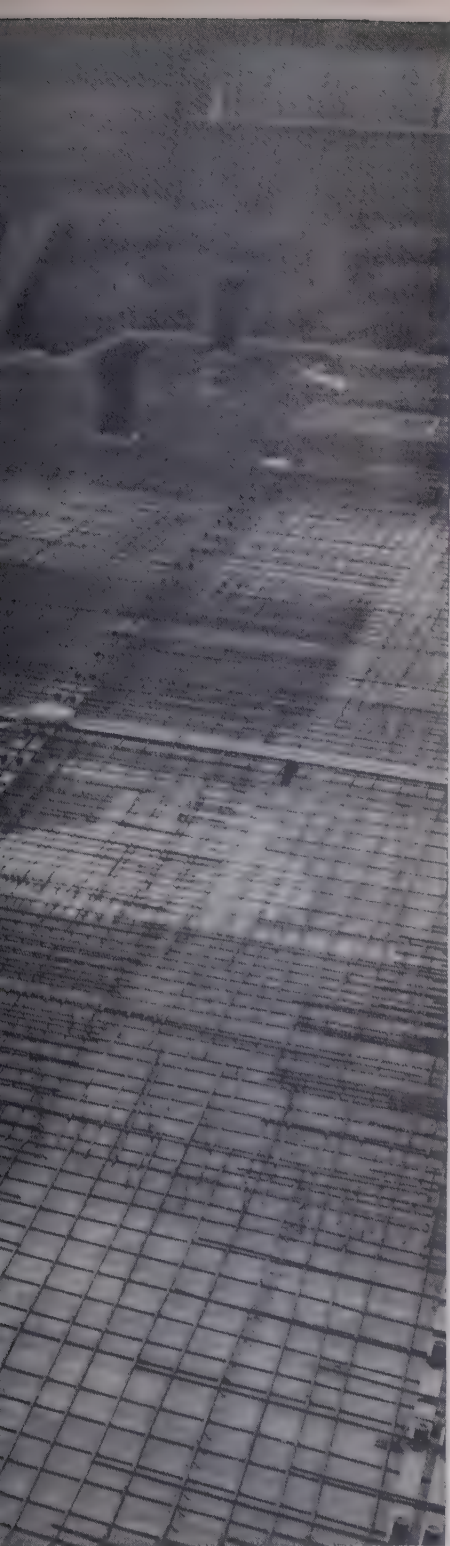
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THE UNDERFLOOR
RACEWAY FOR ELECTRICAL
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Workmen finish laying concrete reinforcing bars over Nepecoduct system of underfloor raceways. All construction was under the direct supervision of Mr. H. G. Winton, Winton and Robbins Ltd., General Contractors. Architects: K. R. Cooper; Electrical Contractor, Frank Estabrook.

Nepecoduct system embedded in floors will cut maintenance costs because all electrical services are easily accessible through a common handhole opening in each junction box.



Architect's rendering shows the finished building's ultra-modern design. National Electric Nepcoduct gives tenants a built-in system of electrical distribution that makes outlets available wherever they are needed and anticipates changing electrical needs without expensive alterations.

FIRST LIFT SLAB STRUCTURE IN TORONTO uses Nepcoduct to provide complete electrical flexibility

For their new three story office building, Winton & Robbins Ltd., one of Canada's leading contractors, utilized National Electric Nepcoduct to assure efficient, economical electrical distribution.

The building is the first example of lift slab construction to be erected in Toronto. National Electric Nepcoduct was selected as the underfloor electrical raceway system due to its adaptability and ease of installation in this economical building technique.

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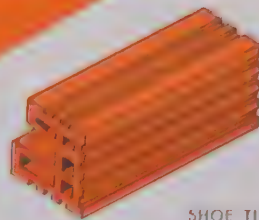
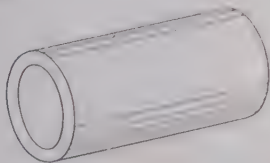
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- ✓ HIGH INSURANCE RATING

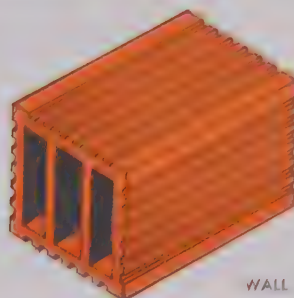
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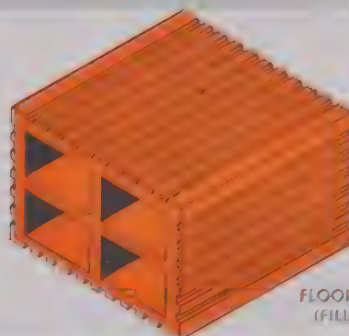
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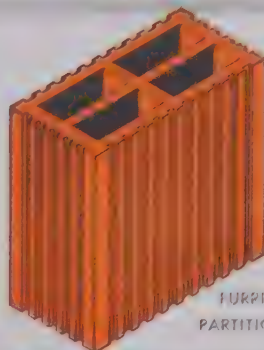
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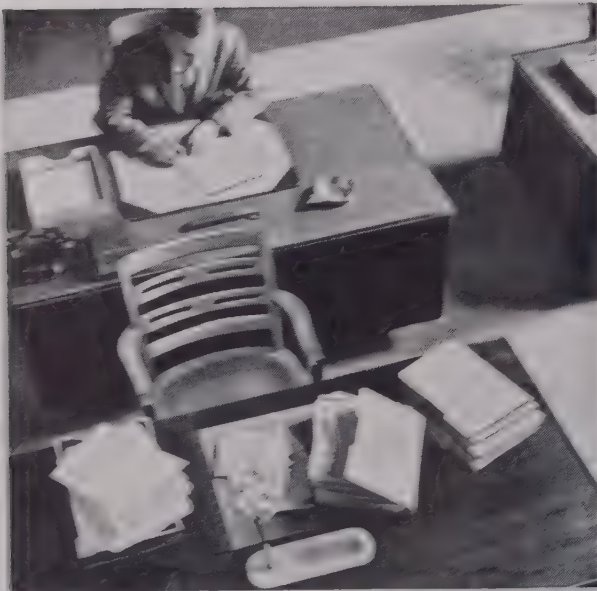
Air-borne dirt costs business countless millions



... in redecorating



... in merchandise mark-downs

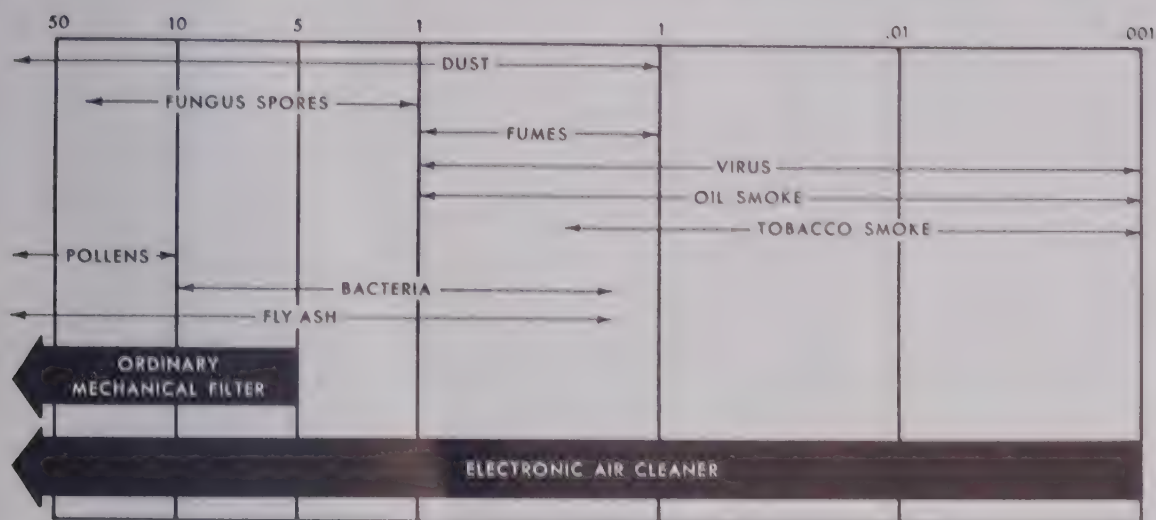


... in lost man-hours



... in cleaning

DIRT CHEAP?



*Cut air-borne dirt losses with the
New Electronic Air Cleaner—from
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HERE'S PROOF—

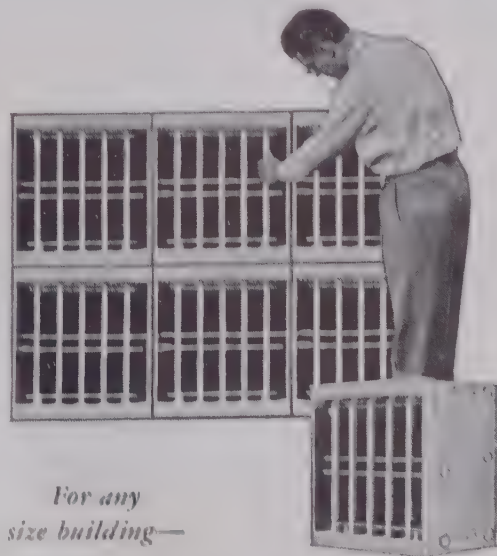
As shown above, common air-borne contaminants range in size from 50 to .001 microns. In this area are the major causes of soiling and many respiratory ills. It should be noted that the ordinary mechanical filter removes only part of these contaminants—for practical purposes very little under 5 microns. But notice the wide range of protection a Honeywell Electronic Air Cleaner provides. It removes not only large coarse particles, but microscopic carriers of many other kinds of dirt and disease, as well.

THE ELECTRONIC Air Cleaner is the most recent addition to Honeywell's world-famous line of products for the control of year-round air conditioning. With its introduction, Honeywell's reputation for quality and dependability becomes identified with the most efficient method commercially available for ridding the air of costly air-borne dirt.

Freedom from this scourge means a bigger profit margin than ordinary mechanical filters can provide.

Whatever the business, substantial new savings can be realized through reduced cleaning and decorating costs, and lost man-hours. These, plus other savings will more than pay for the initial installation of a Honeywell Electronic Air Cleaner.

A Honeywell sales engineer will be glad to discuss the advantages of a Honeywell Electronic Air Cleaner with you. Contact your nearest Honeywell office or write to Honeywell, Toronto 17, Ontario.



*For any
size building—*

Honeywell



First in Controls

All Honeywell Electronic Air Cleaners are built around this basic cell that permits easy, fast "building-block" construction to fit any air system—supermarket to sky-scraper. The "building-block" technique has another distinct advantage too—it offers easier servicing.



Architects: Thompson, Berwick & Pratt

Why Ultra-Modern B.C. Electric Installed Turnbull Trafloomatic Elevators

- 1 Design.** The new B.C. Electric building is a shining example of the progressive thinking of Canadian architecture. Design is important with us too—and we're equally proud of the careful blending of the elevator cab and entrance design with the ultra-modern decor of the building.
- 2 Flexibility** is the keynote of Turnbull Trafloomatic systems. Regardless of your peak demands there is a Turnbull system that will handle those demands efficiently. There is no "forgotten man" at any time... on any floor with Turnbull Trafloomatic.
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Miss Turnbull, world's first elevator hostess on duty at modern B.C. Electric's foyer during first week of building opening.

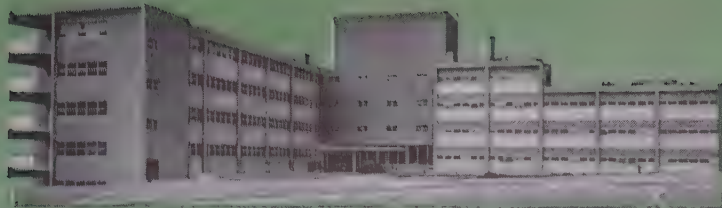
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Beauty, coupled with fire-safety, durability, economy both in construction and maintenance were controlling factors in the choice of architectural concrete for this new hospital at Trail, B.C.

Cost analysis and competitive bids show that reinforced concrete frames and floors achieve savings of more than 25%.

The building, presently providing for 150 beds, is planned for expansion to 225 beds. Its total cubic content is 1,278,000 cubic feet, its cost \$1,919,810—per cubic foot, \$1.50; per bed, \$12,800.

Architects: Sharp & Thompson, Berwick, Pratt

Structural Engineer: Victor Thorson

General Contractors: Bennett & White Construction Co. Ltd.

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Architect chooses Weldwood plywood paneling to beautify sanctuary, vestibule and beams of low-budget church

Many architects find it a welcome challenge to design a striking church interior within the limits of a small budget. Here's how architect Robert A. Green of Tarrytown, New York accomplished it in the Church of Our Lady of Fatima, Scarsdale.

Cinder block was the construction

material. To direct attention away from the gray walls, the architect selected Weldwood Red Oak paneling for sanctuary, vestibule and beams. The warmth and dignity of this wood accomplished his aim.

The low cost, lifetime guarantee and warm, inviting finish of Weldwood

real wood paneling make it particularly well suited to church construction and remodeling.

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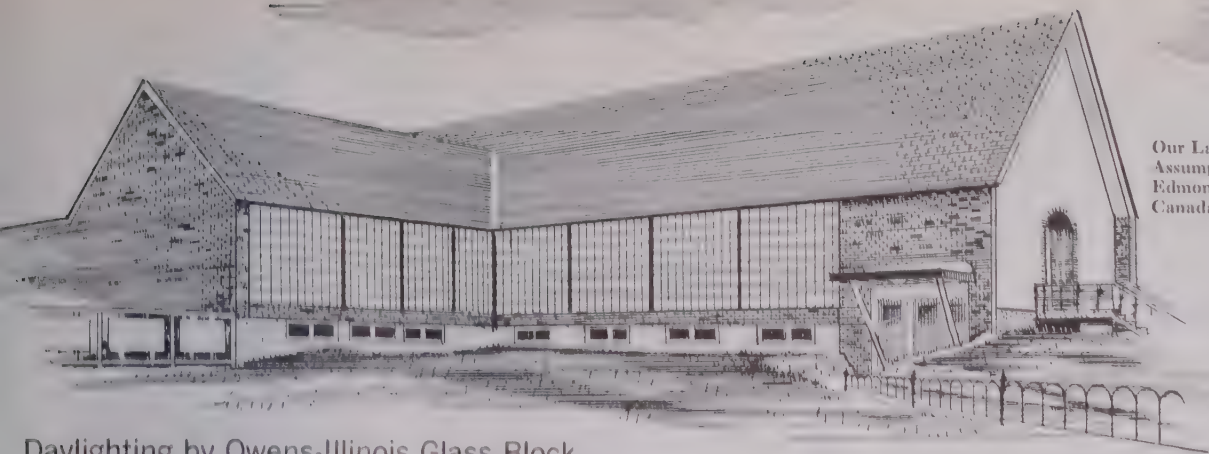
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Our Lady of the
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Edmonton, Alberta,
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Daylighting by Owens-Illinois Glass Block . . .

serenely free of glare and harsh contrasts . . .



Panels of glass block handsomely complement the modern architectural design. Glass block permit use of large glass areas because they insulate as effectively as an 8" brick wall.



Light-directing glass block keep brightness at comfortable levels, prevent harsh contrasts, "hot spots" and glare often caused by ordinary windows. Won't rust, rot or corrode.



A curtain wall of Owens-Illinois Glass Block floods the interior of this modern church with soft, diffused daylight. Glass block are difficult to break, cut costly cleaning chores,

Photographs: Courtesy of Pilkington Glass, Ltd

Here is a church that makes maximum use of daylight, yet is easier to heat in winter, requires less maintenance. The reason: panels of Owens-Illinois light-directing Glass Block. Here's how they work:

Two sets of scientifically designed prisms inside the block's glass walls put light rays through their paces. The first set catches the light, levels it off, then virtually tosses it to the second set of prisms on the inside wall. This second set angles the beams up-

ward to the ceiling to be diffused softly and evenly throughout all parts of the room.

If you are planning to build a new church or school or remodel an old one, don't overlook the unique daylighting advantages, maintenance economies and architectural beauty of Owens-Illinois Glass Block.

For complete information, write: Owens-Illinois Inter-America Corporation, Department JR-6, Box 1035, Toledo 1, Ohio.

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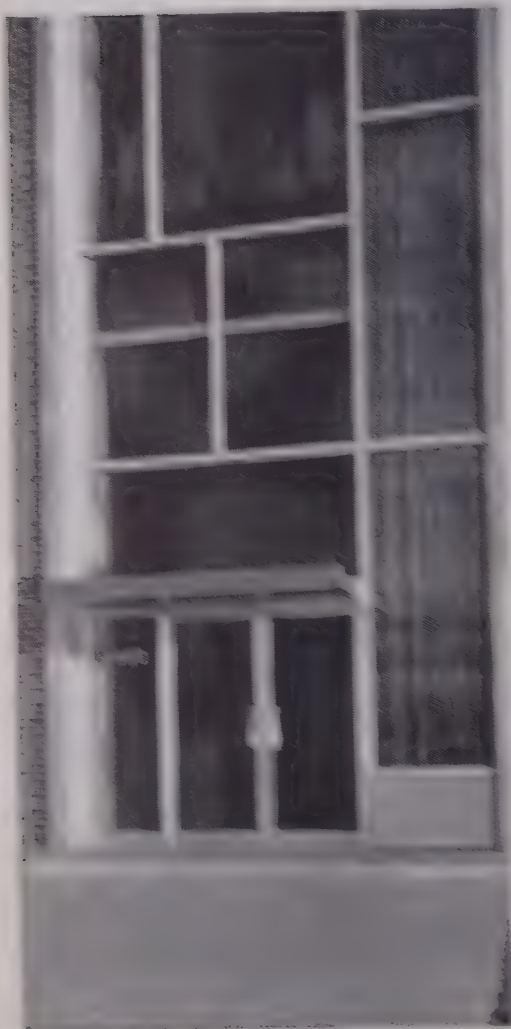
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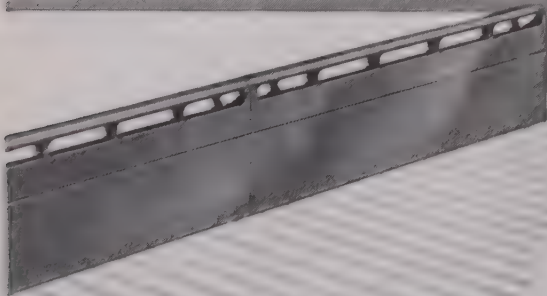
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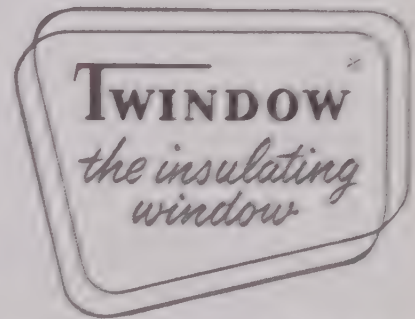
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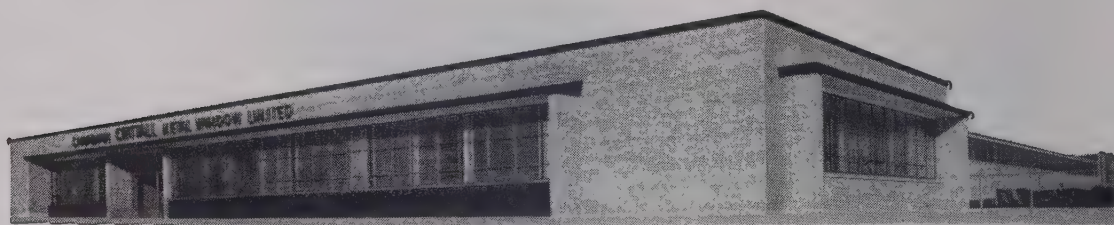
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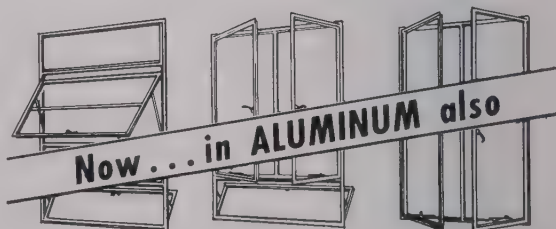
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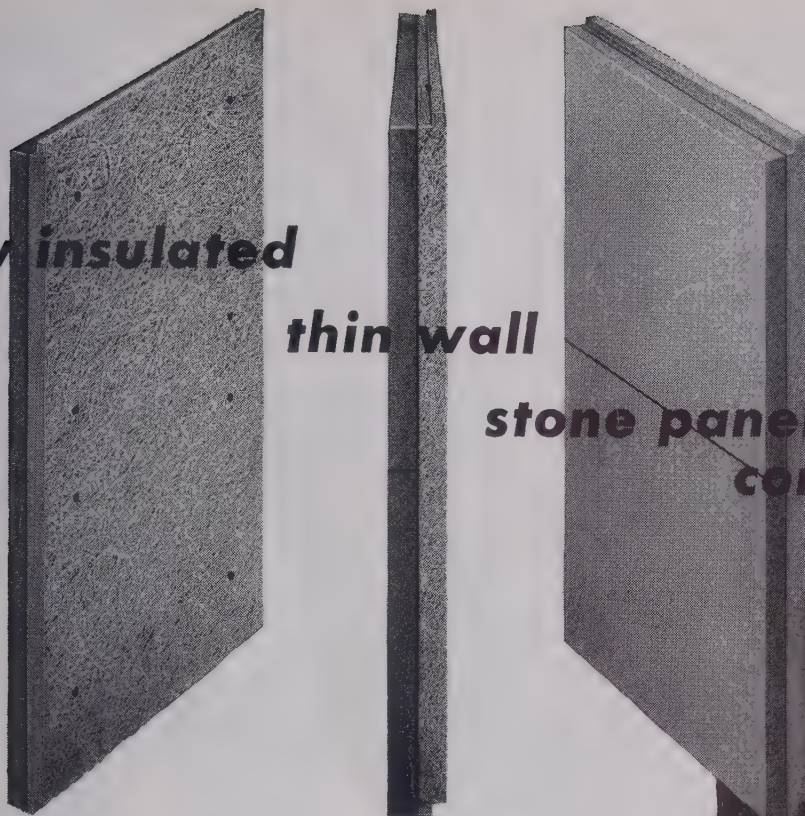
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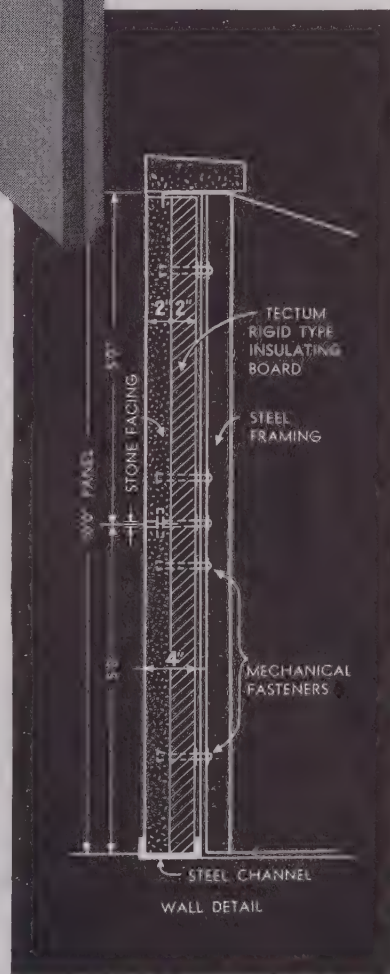
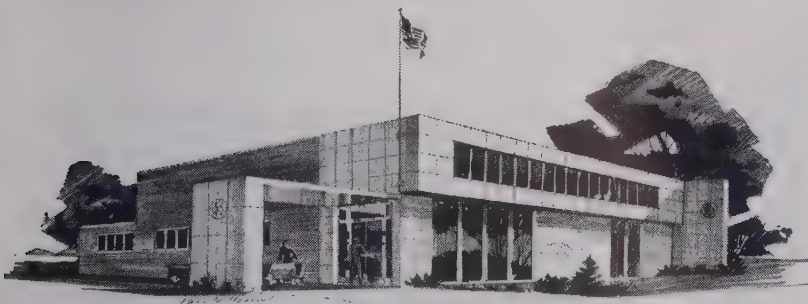
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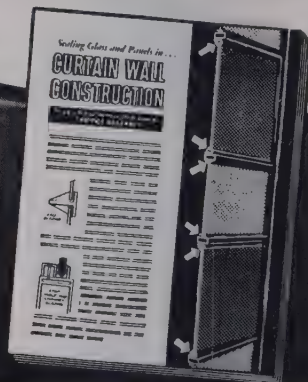
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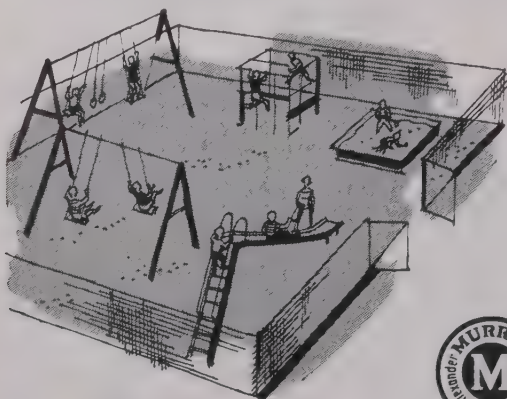
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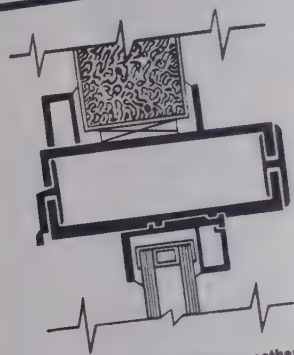
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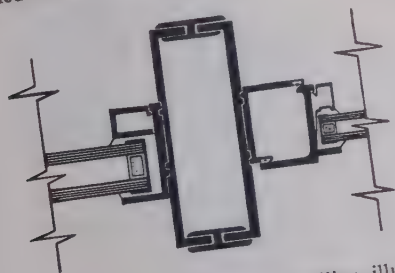
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Bar Mullions for faster installations, weatherproof expansion
Unique H-Bar aluminum extrusions are used to form the mullions of CPI-Vampco Curtain Wall sections. This diagram illustrates the horizontal mullion. A full H-Bar is used on the inside. On the outside a modified H-Bar provides a water-table and a drip.



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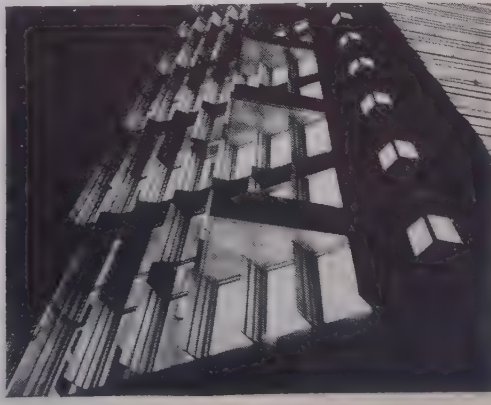
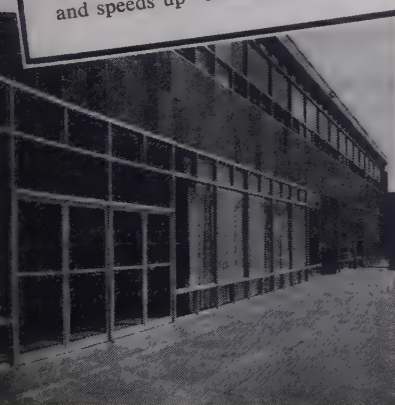
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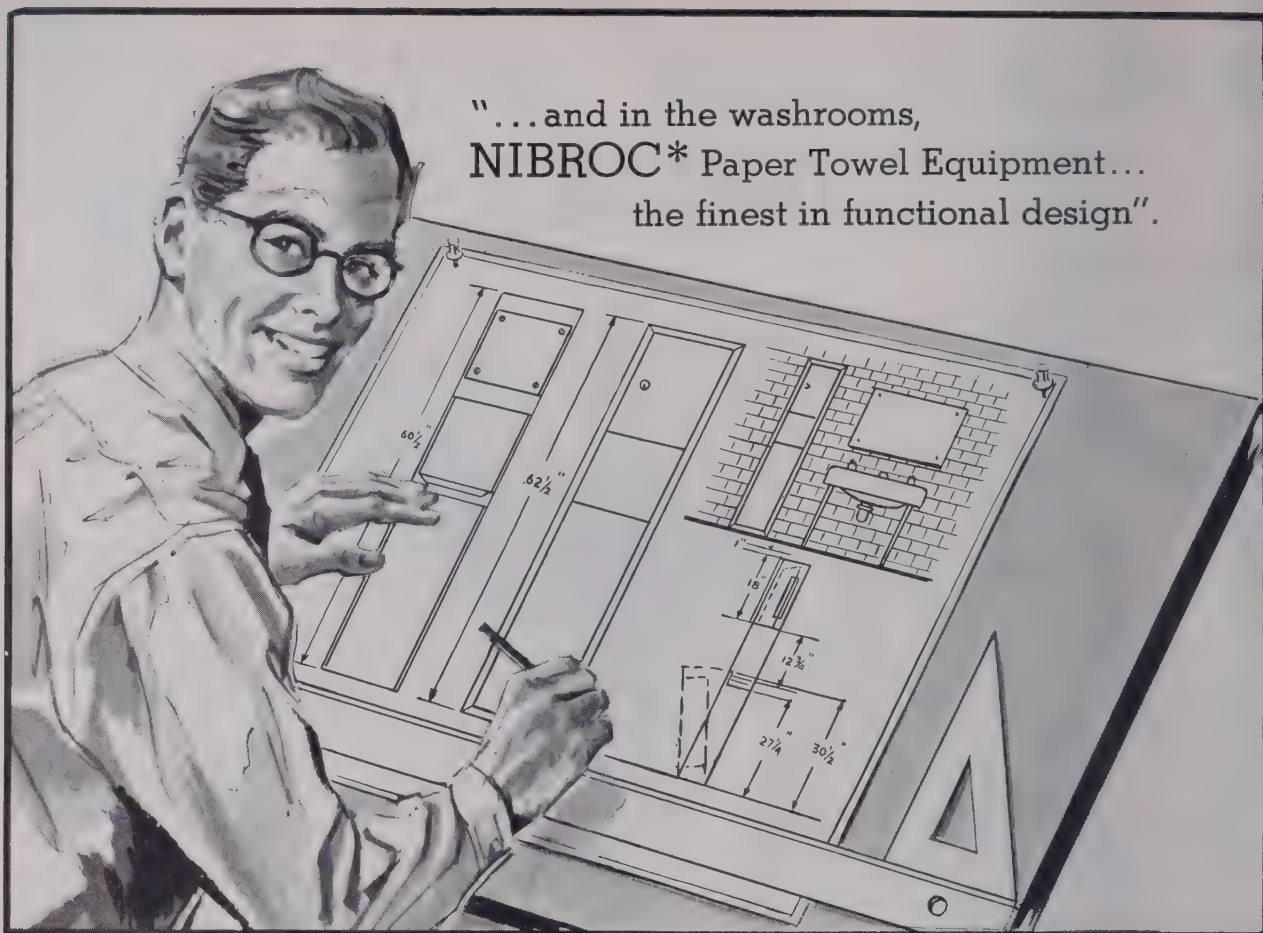
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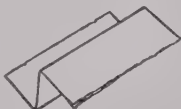


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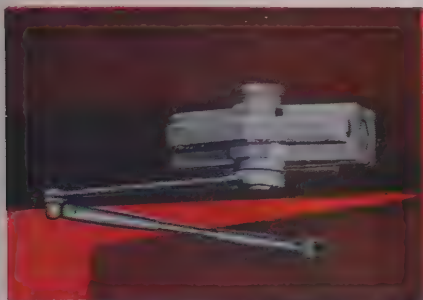
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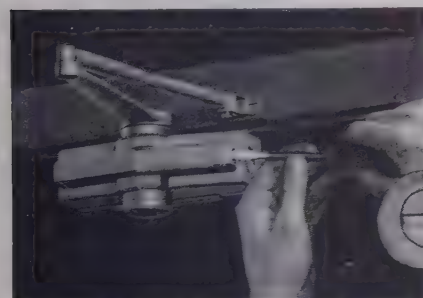
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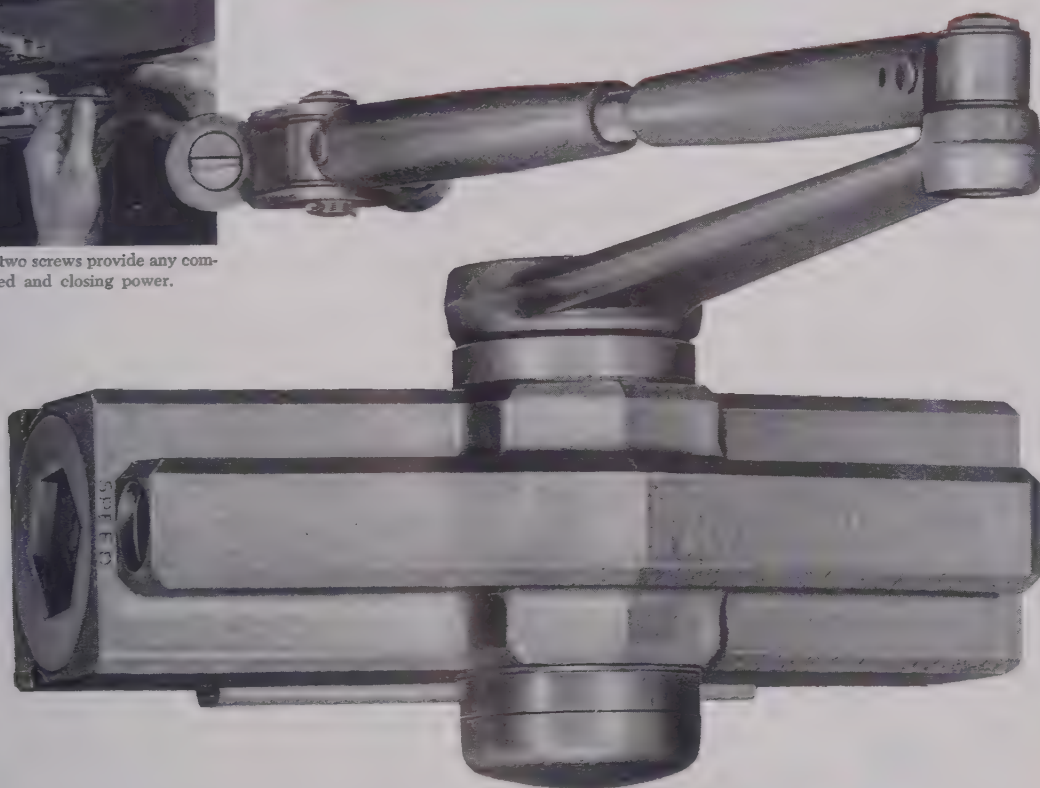


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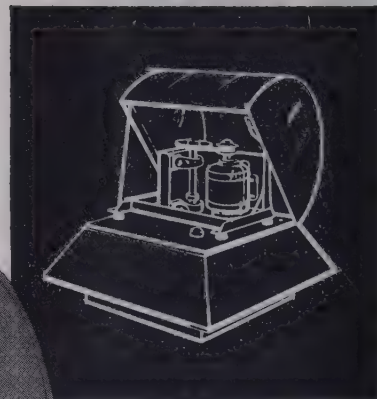


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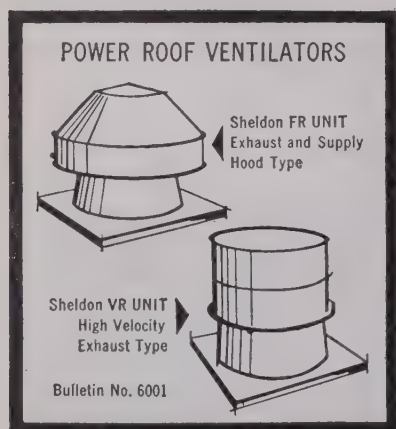
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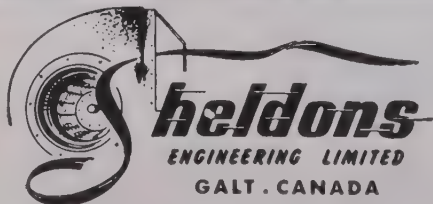


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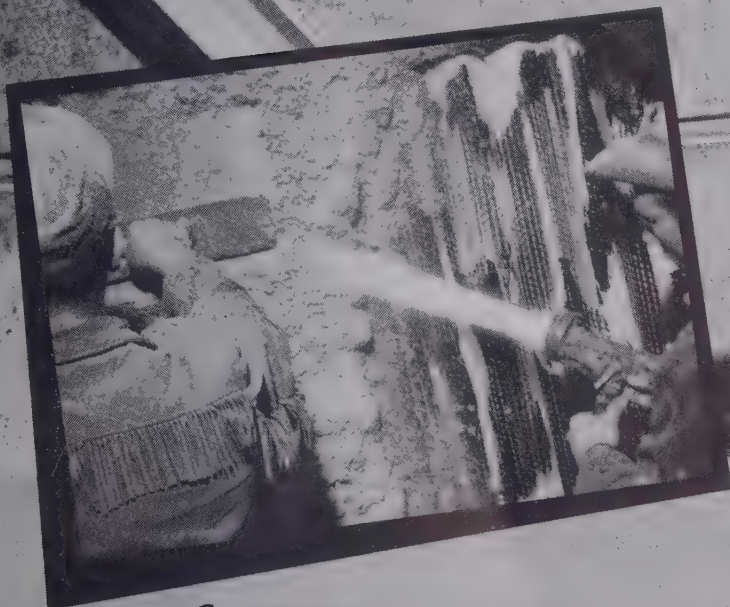


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For further information call the nearest Atlas office.

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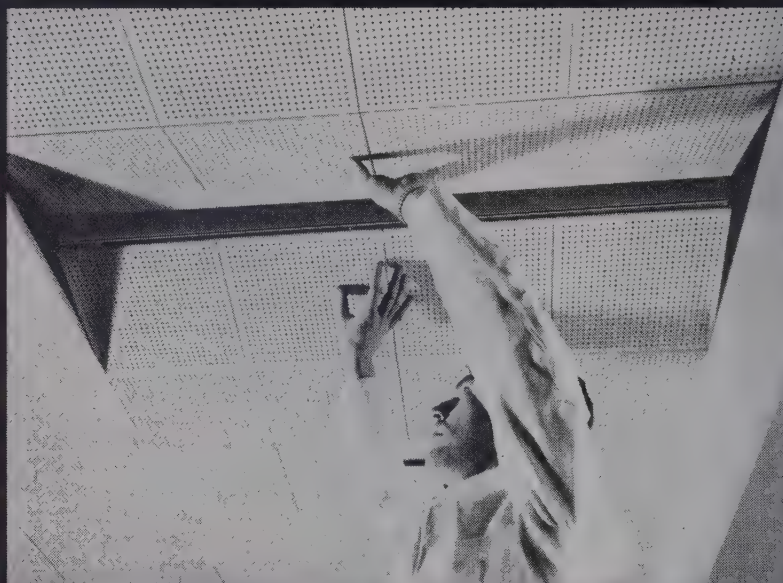
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In today's construction market, where competition is becoming increasingly acute, acoustical ceilings can bring more value for the construction dollar than ever before.

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Acousti-Celotex integrated ceilings are vehicles for light, air diffusion, decoration, and sound conditioning.

The Celotex Acousti-Line suspension system is a speedily erected ceiling assembly primarily for use with 12" x 24" acoustical tile. Its unique design permits all three components of interior 'conditioning' for sound, light, and air to be immediately flexible and interchangeable.

With the Celotex Acousti-Line suspension system, acoustical tile, light fixtures, and air diffusers can be moved and rearranged quickly to meet changing requirements in the layout of an area.

For details of the many opportunities available with this outstanding ceiling system, contact your nearest Dominion Sound office.



DOMINION SOUND Equipments Limited

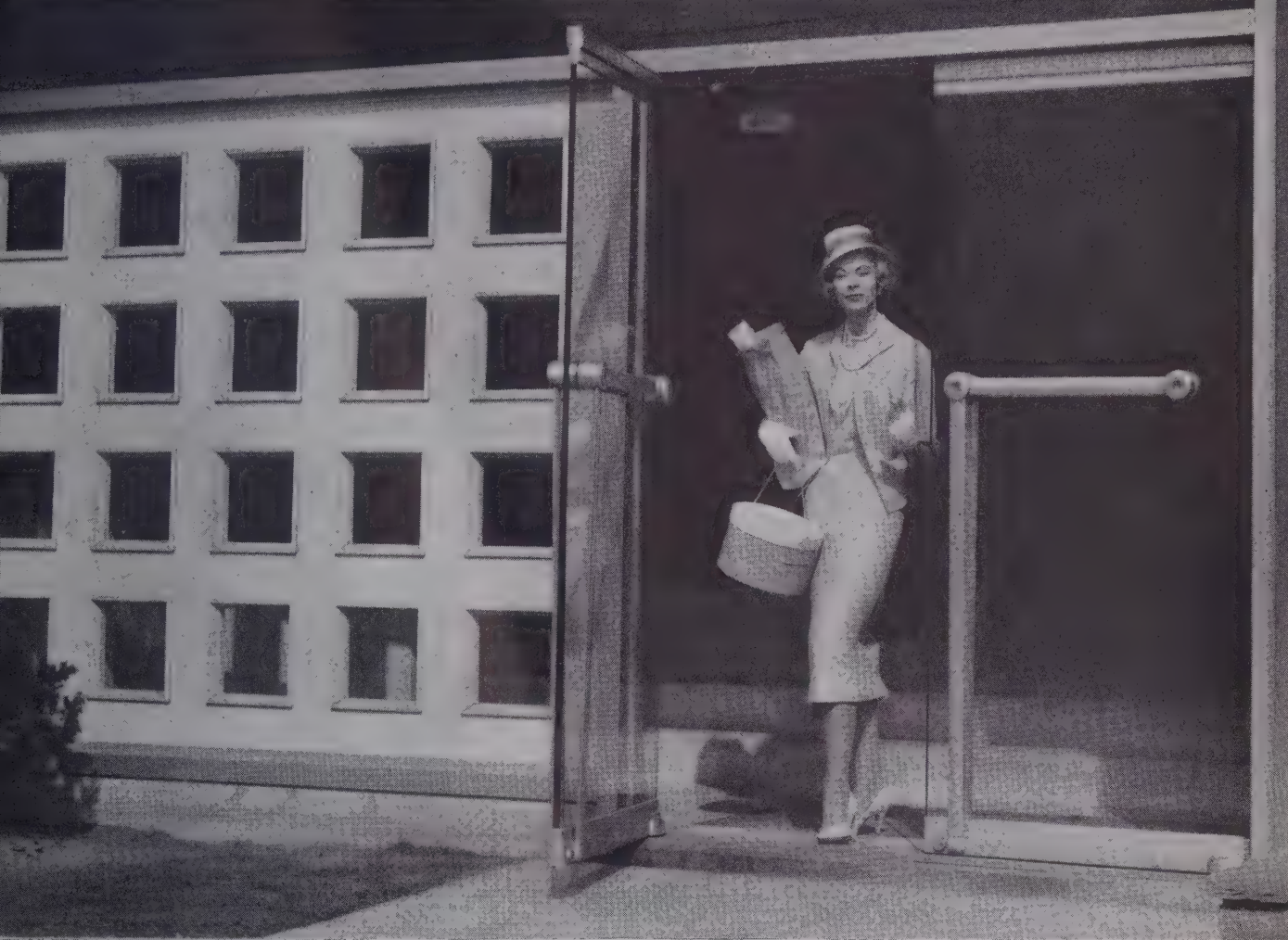
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DS-57-2



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Architects: Govan, Ferguson, Lindsay, Kaminker, Langley, Keenleyside



Owners and users alike approve entranceways with Pittcomatic automatic door openers . . . a convenience that adds greatly to the prestige of the building, reflecting favourably on the occupants, owners and architects.

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For building or for modernization, for hospitals, terminals, banks, office buildings, Pittcomatic automatic doors are rapidly becoming a necessity. They're easy to install and maintain. Smoothly, silently, safely, they create an entranceway of impressive charm and extraordinary convenience.

For complete details, call your nearest Canadian Pittsburgh Industries representative.

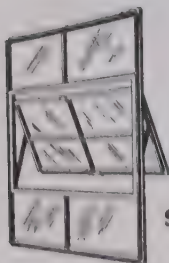
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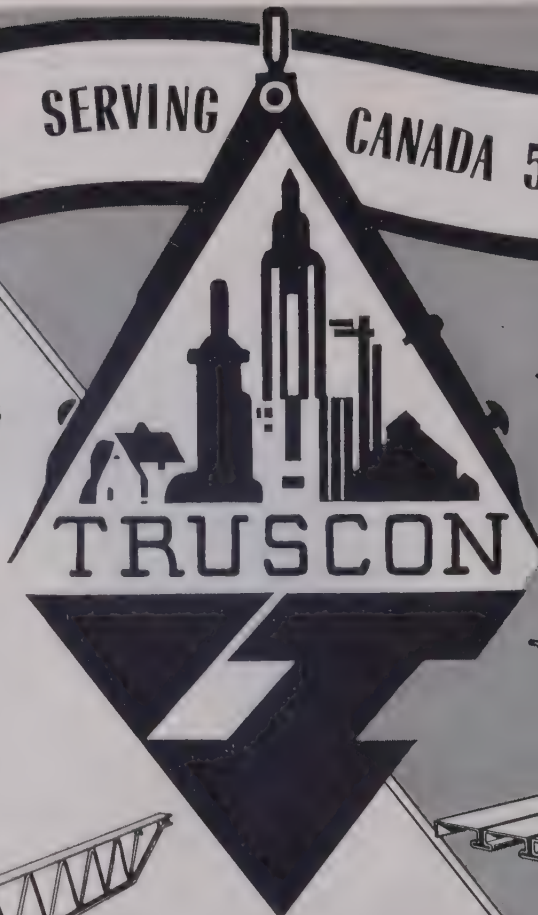
CANADA 50 YEARS



STEEL WINDOWS



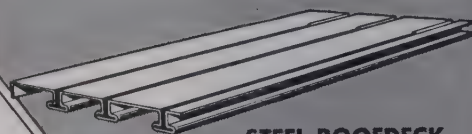
STEEL DOORS & FRAMES



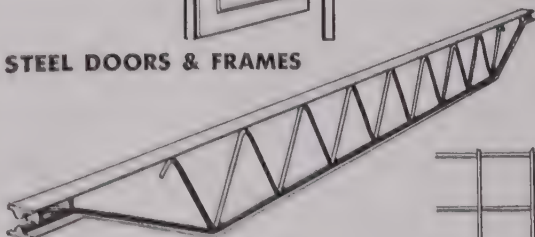
1907-1957



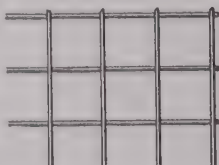
STEEL FLORETYPE



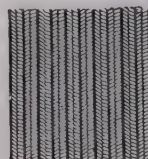
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Since 1907 Truscon has introduced many steel and aluminum components that have made for faster, easier and more economical building techniques. 50 years ago Truscon meant high quality. It still means the same.

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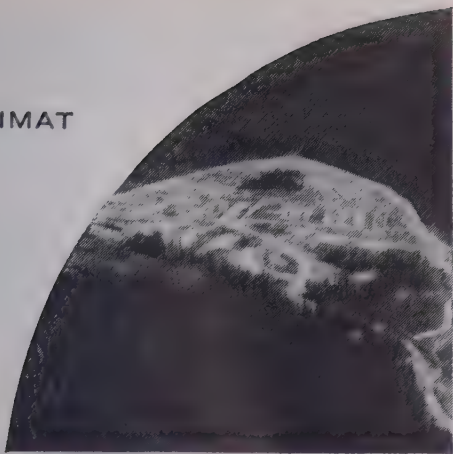
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For your technical files, we can supply comprehensive data on all the products listed below.

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Bolting beats riveting 3 to 1



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Structural Steel:

The Canadian Bridge Co. Ltd., Walkerville, Ont.

Construction Engineer:

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General Contractors:

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High-Strength Bolts are quite commonly being installed at rates averaging 150 per man/day by crews with little or no previous experience . . . whereas 50 per man/day is a creditable rate of riveting, even for an experienced crew.

In addition, high-strength bolting requires less equipment, less training, less supervision, and

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Finally, High-Strength Bolts in place on the job cost less than rivets. For a free technical booklet on this rapidly growing technique, contact any Stelco Sales Office.

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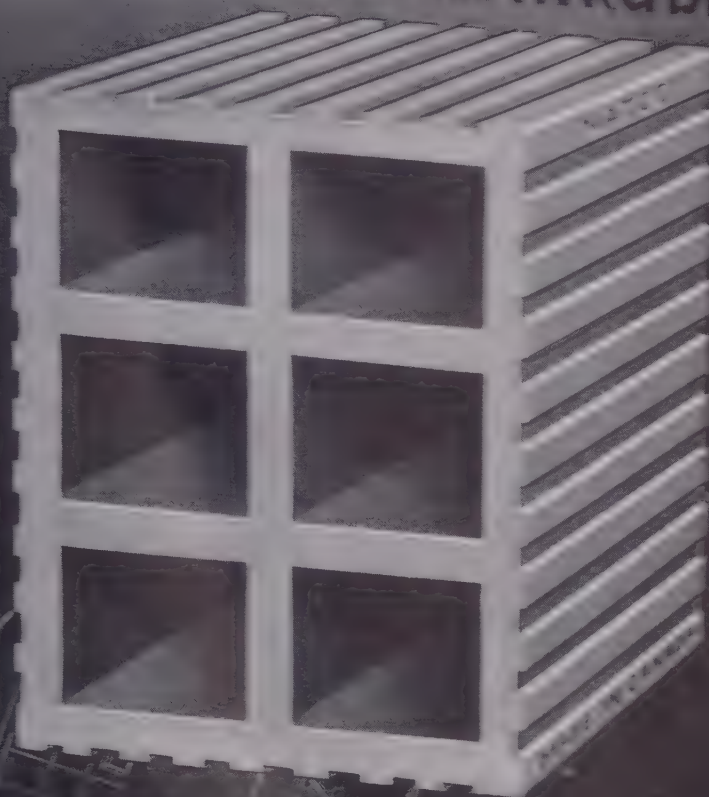
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Unshrinkable
Unshrinkable



Unshrinkable
Unshrinkable

NATCO STRUCTURAL CLAY TILE

DOES NOT SHRINK AFTER IT IS BUILT
IN THE WALL OR PARTITION

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57 BLOOR STREET WEST
TORONTO, ONTARIO



FACTORY: ALDERSHOT
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**DESIGNED BY ARCHITECTS TO TAKE
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SCHOOLS AND OTHER INSTITUTIONS**



The locker school architects asked for and helped design. Ruggedly built of heavy gauge steel with a fully reinforced door to take lots of abuse and resist vandalism. Recessed handle keeps pad-lock from projecting beyond the outside surface of the door.

Featuring...

- ... Fully recessed handle to keep pad-lock from projecting out from face of locker. May be supplied without pad-lock and master keyed if necessary.
- ... Full length door reinforcing panel to insure years of trouble free service.
- ... Complete with hat shelf and three coat hooks.
- ... Louvered door and punched reinforcing panel affords excellent ventilation.
- ... Chrome number plates on all lockers.
- ... May be fitted with sloping tops if desired.
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**Standard sizes...72" high...12" and 15" wide...15" and 18" depths
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L-72



WHITE

the color of cleanliness

Solid Olsonite white seats stay white

Wherever cleanliness is important you find white the predominant color. White is the color of cleanliness. At last sanitary white is available in industrial seats for cleaner-looking, more attractive public bathrooms. Shock-proof Olsonite seats come in hospital-clean white that looks brighter, more sanitary than old-fashioned black.

And Olsonite seats are more sanitary because there are no seams or crevices for germs to hide in, no applied covering to crack or chip. Olsonite #5 shock-proof seats are the first solid seats that *stay white* . . . the color *goes all the way through*. When installed, there is no exposed metal to rust or corrode. They keep their bright, clean look for years with a minimum of maintenance.

Standardize on solid white Olsonite

industrial seats for all replacements and new installations. See, for yourself, how clean-looking *white* adds to the attractiveness of public installations.

More Olsonite seats are sold in Canada than all other makes combined.*

**CANADIAN BATTERY
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WINDSOR, ONTARIO

*Source: Dominion Bureau of Statistics

SOLID
Olsonite
SEATS

A4-14



A new design concept in toilet partitions

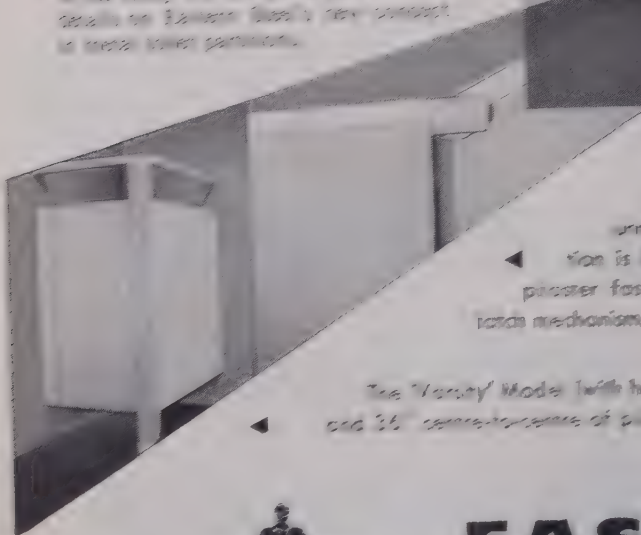
CONCEALED HARDWARE

at no extra cost

For many years metal toilet partitions have been the most efficient answer to sanitation problems in public buildings. Now, for the first time, Eastern Steel can offer something new—and better—on no extra cost. We supply metal toilet partitions with all hardware included for the decorative brushed chrome plating when concealed.

Available in standard sizes and colour finishes and easy to install, Eastern Steel's "First Line" metal partitions come in two models. Prange for offices and institutions, employing the use of partitions, doors and drawers only. For more durable wear in schools and commercial buildings, Eastern Steel offers the "Vanity" model with extended drawers and a headrail. On both types the door stop is an integral part of the door and the bumper for the door stop is mounted in the inside face of the drawer.

Write today for complete specification details on Eastern Steel's new concept in metal toilet partitions.



The top hinge is fully enclosed, thus assuring a smooth, unmarred appearance. Also out of sight in final installation is bottom pivot, partition-to-wall fastening, partition-to-plaster fastenings, plaster-to-wall fastenings and spring loaded latch mechanism.

◀ The "Vanity" Model (with headrail) is supplied with dimensions of 30", 32", 34" and 36" centre-to-centre of pilasters. Overall height 82".

578



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P R O D U C T S L I M I T E D
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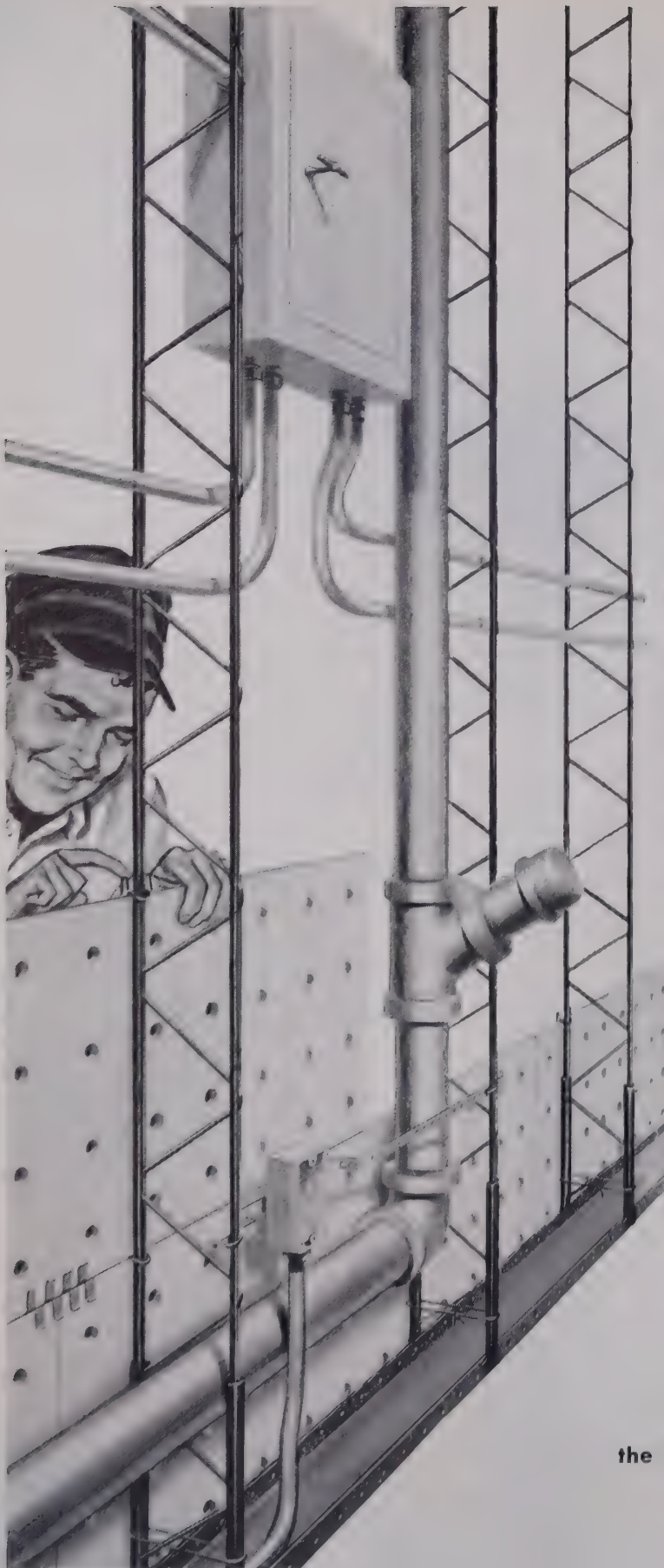


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to lower costs...to simplify
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specify this

fireproof, fast-erecting hollow partition system

using TRUSSTEEL studs and ROCKLATH*

FIREPROOF—one hour rating; with ROCKLATH plaster base.

GOES UP FAST—TRUSSTEEL Studs require little, if any, cutting or fitting on the job. Attachment shoe allows quick adjustment (up to 4 in.) for varying ceiling heights. ROCKLATH is easily attached with TRUS-LOK clips.

ECONOMICAL—TRUSSTEEL Stud cost is comparable with wood yet permits easier concealment of conduits, ducts, plumbing and other services; ample strength without bulk for savings on structural steel.

LIGHTWEIGHT—finished partition weighs as little as 9 lbs. per sq. ft. permitting installation most anywhere without additional structural framing.

RESISTS SOUND TRANSMISSION—sound ratings from 44 db. to 48 db. depending on type of plaster used.

STRONG—equal in strength, *after plastering*, to any comparable non-bearing steel stud partition.

VERSATILE—TRUSSTEEL Studs are available in various widths for finished wall thickness of 4 to 8 in. *T.M. Reg. in Canada

FOR MORE INFORMATION AND DETAILS:
Contact your C.G.C. Sales Representative; or
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protection against decay, insect and marine borer attack

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Pole type farm buildings and silos

also

"Protexol" Fire Retardant Treatment

Complete timber treating and
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backed by 45 years experience

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*B.C. Electric Bldg.
Vancouver, B.C.*

THERE are varying degrees of experience and different kinds of experience but there is a difference between exposure and experience.

You've seen people who have been exposed to experience without getting very much. Others have absorbed a tremendous amount of experience in a short time. The difference is in the ability to absorb experience and put it to use.

Williams & Williams have manufactured and installed Wallspan Curtain Wall on major building projects across Canada. These fine buildings are standing examples of the products of a company which has been exposed to, and absorbed experience.

We have built an organization of people with this quality, so when you specify Williams & Williams, you buy effective experience.

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SelecTemp



a thermostat in every room

When every room is a separate heating zone, many of the problems that a conventional system can't touch are solved automatically . . . and with the SelecTemp heating system, they are solved economically. For example:

1. Tenant satisfaction is assured because occupants have independent control of room temperatures. They select the temperature they want.
2. Rooms are always comfortable, whether on the cold or warm side of the building, because the ever alert mechanism in each unit automatically adjusts for extra heat loss or gain, and supplies the right amount of heat needed at the right time and in the right place. Each unit takes care of its own room no matter how conditions may vary in other parts of the building.
3. Owners report substantial fuel savings because room-by-room control does away with overheating. *Heat is not wasted through open windows.*
4. The SelecTemp heating system can be economically installed in either new or existing buildings. Operating costs are low. Money can also be saved by heating only the rooms in use. The temperature can be lowered in rooms temporarily unused—then when these rooms are needed, they can be quickly reheated.

For cooling. Individual unit cooling combined with SelecTemp heating is the perfect combination for year 'round comfort, with room-by-room control of both heating and cooling.

Send for free literature. Iron Fireman will gladly send you a free booklet describing the SelecTemp heating system. Get all the facts—fill out the coupon below.

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Engineered
HEATING AND COOLING



MORTON SALT COMPANY CUTS FUEL COSTS 57%

Manager of Wadsworth, Ohio office writes:

"Our former steam system was controlled by one master thermostat. We had room-heat fluctuations from 5 degrees to 25 degrees in the general office and in seven enclosed offices, resulting in absenteeism loss of 343½ working hours, because of illness due to colds. With SelecTemp heating during the season just ended we had absenteeism loss of only 75 hours.

The cost for heating in the 1954-1955 season was \$1,361.13. Our cost for SelecTemp heating in the colder, longer 1955-1956 season was \$586.25 or an actual saving of \$774.88. However, we have had some increases, i.e.: increased comfort, increased employee morale and increased attendance."

*S. A. Carlson
Office Manager*

Small, compact units

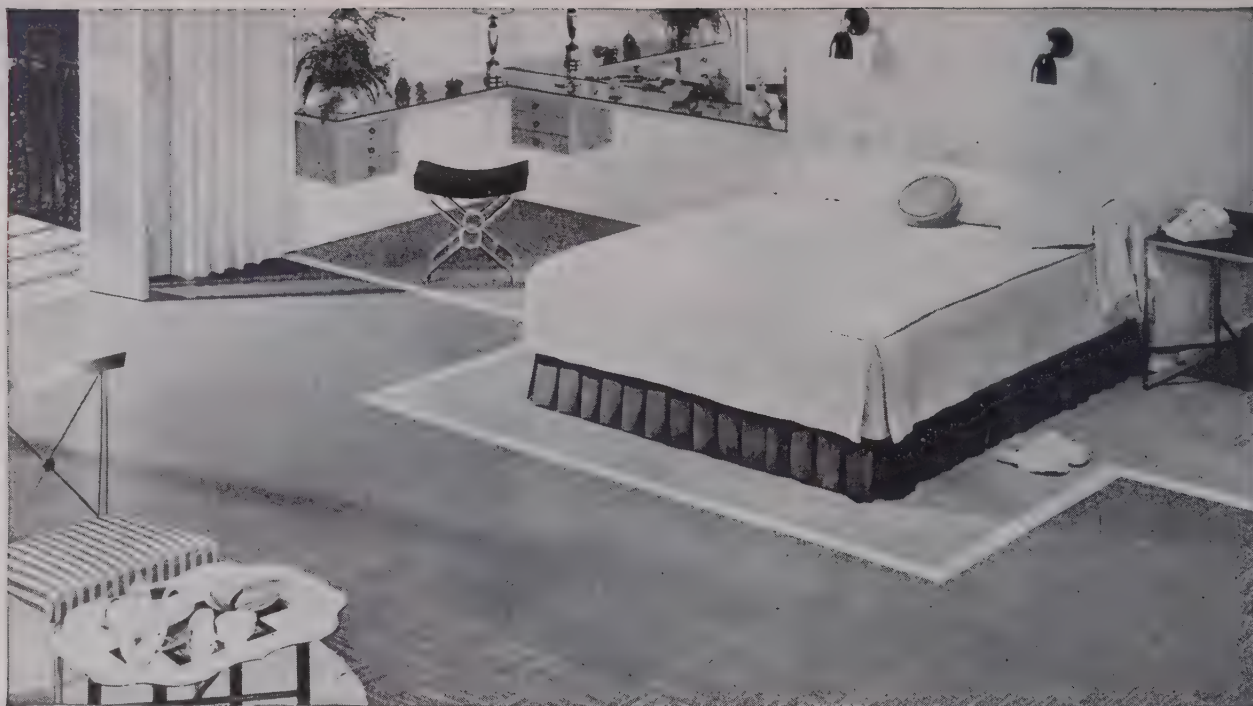
Only 18 inches high, the SelecTemp units are recessed in walls; take no floor space. Each unit complete with its own thermostat, air filter, heat exchanger and steam driven fan. Steam is supplied by a low pressure boiler, fired by oil, gas or coal, or from district steam lines. Units can be painted to match walls.



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and business interiors*

**DOMINION LINOLEUM
MAKES THE DIFFERENCE!**

MODERN LINOLEUM is ideally suited to present day demands for lighter living. The colours are gay but subdued—the finish smooth but subtle. A proven endurance record makes this flooring a practical investment for both home and business interior. Today's Dominion Linoleum is available in colours and tones of such delicate proportion that they blend perfectly with contemporary home furnishings. Also in vivid shades that make a dramatic contribution to the most modern of business interiors. For samples and illustrated leaflets on colour range, maintenance, installation and more interior scenes, write Dominion Oilcloth & Linoleum Company Limited, 2200 St. Catherine Street East, Montreal.



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2 new faces

for Fiberglas Acoustical Board*

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WASHABLE AND PATTERNED . . . Sonofaced board makes suspended acoustical ceilings a practical reality in locations where frequent washing is necessary. The surface of "Mylar"† polyester film can be scrubbed. You'll see its interestingly patterned surface in hospitals and restaurants. Suitable too for walls, alcoves and booths.

†Du Pont trade mark

MAT-FACED

FOR EASY MAINTENANCE . . . a toughened finish gives a hard, durable surface to this Fiberglas Acoustical Board. Yet it soaks up noise with a remarkable degree of efficiency because of greater dimensional stability and high sound absorption qualities. And because it is made from fibers of glass it is incombustible, won't buckle, sag or warp . . . not ever.



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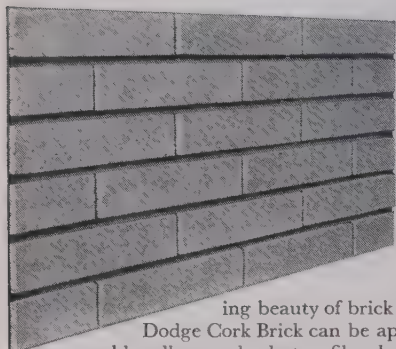
Suspended ceilings with Fiberglas Acoustical Products, provide easy access for maintenance of services. Ideal for new buildings or for renovations.

*T. M. Reg'd.

It's amazing the difference Fiberglas makes*

NEW! **dodge** *Cork Brick*

for creating exciting interiors



This new and distinctly different decorating material means more sales, more profits for you. Dodge Cork Brick combines true brick texture and color, lightweight, ease of application, and low cost to make it possible for everyone to enjoy the excit-

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Dodge Cork Brick can be applied to all types of new or old walls: wood, plaster, fiber board, cement or concrete building block. Four attractive colors. Write for illustrated folder.

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NEW! **dodge** *Cork Tile*

in exclusive specialty patterns

SG Cork Tile The new super gloss finish enriches the beauty of natural cork. It reduces maintenance and is water repellent. The super smooth surface is spot- and stain-resistant.

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Standard Cork Tile A quality tile at an economical price. It has a high uniform density, and a special finishing process insures the smoothest natural cork finish possible.



Write for Dodge Catalog No. 57 and names of Canadian distributors.

DODGE CORK CO., INC.
LANCASTER, PA.

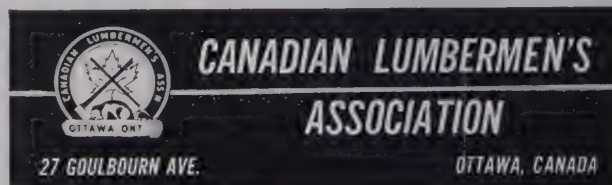


it's the quality
THAT COUNTS!

EASTERN Canadian White Pine (*pinus strobus*) is recognized the world over as one of the best woods for architectural millwork. Its holding qualities for nails, screws or glue are unsurpassed.

Considering its ability to withstand all weather conditions without deterioration and its high insulation value, Eastern Canadian White Pine becomes a must for all high quality sash, door and other millwork!

Buy the best
Buy **WHITE PINE SASH**





it's amazing the difference
Fiberglas makes

The name Fiberglas puts a gilt edge on a property deal. It spells out "quality". For Fiberglas is known... accepted... **TRUSTED**. If Fiberglas has been used to insulate the house then the prospective buyer believes that sound materials have been used throughout the construction.



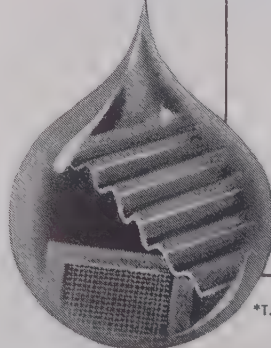
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*T.M. Reg'd.

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THE ORIGINAL BASEBOARD RADIATION

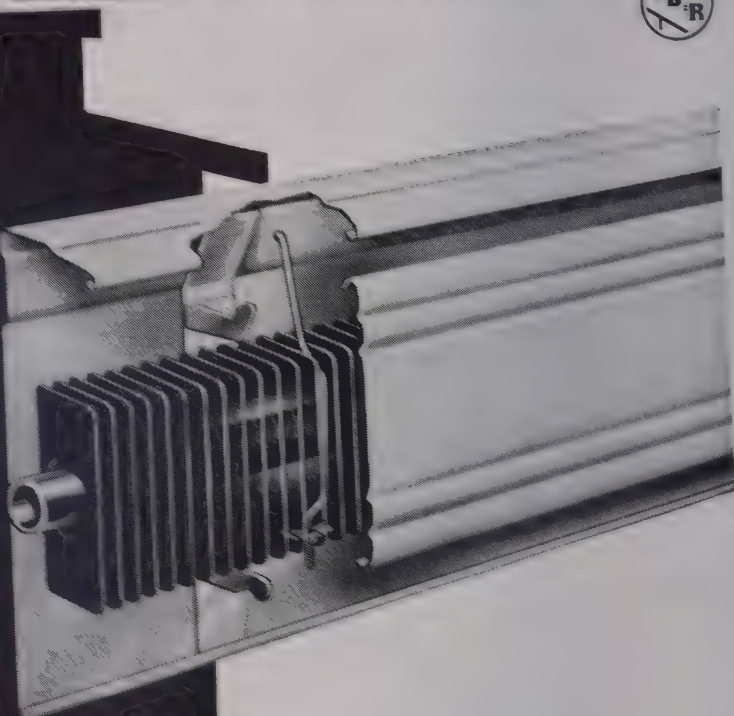


COSTS LESS

HAS FEWER PARTS

EASIER TO INSTALL

CLEANER, STEADIER HEAT



"Costs a Houseful"

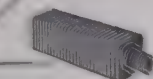
In homes or offices and wherever beauty can be an added feature without extra cost, install "Heal" TRIMLINE for the finest in comfort heating, at low operating cost.

"Heal" TRIMLINE gives complete satisfaction. Room temperatures vary only a few degrees floor to ceiling and reaction to thermostat control is speedy.

Get further details today — write for FREE DESIGN CATALOGUE that gives Dimensional Data, I-B-R Ratings, Heating System Design and Piping Design Chart.

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Beauty Reigns

When you design with Porcelain Enamel
by Crane Steelware Limited

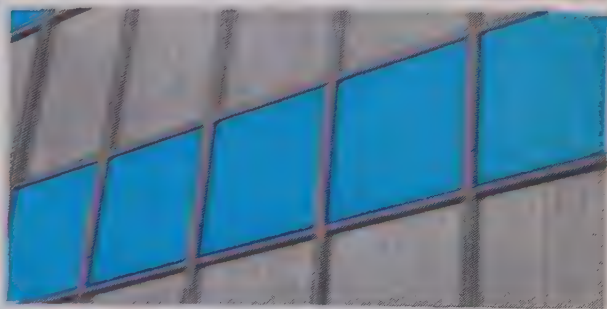


Sudbury Hydro Electric Commission Building
Architects: Fabbro and Townsend
General Contractor: Chinnell-Gordon Limited

You can do almost anything with Porcelain Enamel Panelling made by Crane Steelware Limited. The fabrication possibilities are virtually limitless. The wide variety of colours, textures and finishes vividly interpret contemporary designs in both renovation and new construction.

Unfading is the word for porcelain enamel. Its hard, lasting, permanently coloured surfaces defy the ravages of corrosion, moisture, time and weather. No surface pores collect dirt and stain . . . its beauty is ageless.

Economical too! Easy and fast erection with a minimum of framing and foundation costs make Crane Porcelain



Colourful gridded glass can give modern buildings a new look.

Enamel Panelling remarkably practical for all types of architecture.

Canadian Pittsburgh Industries are the exclusive Canadian distributors of Porcelain Enamel Panelling made by Crane Steelware Limited. Write or phone for a complete detail and estimate please.

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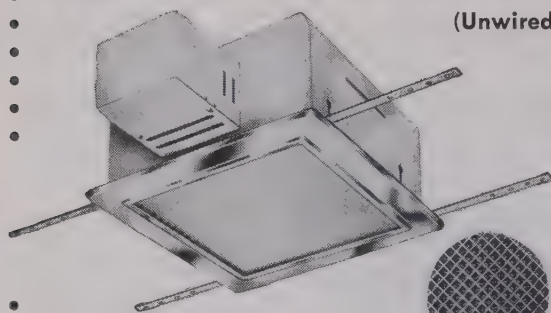
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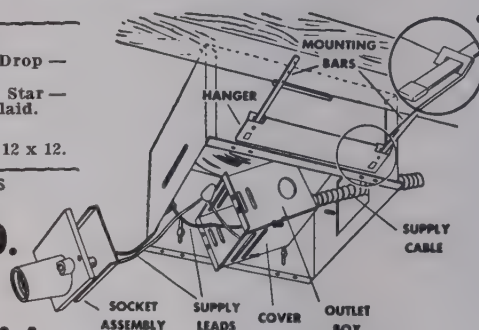
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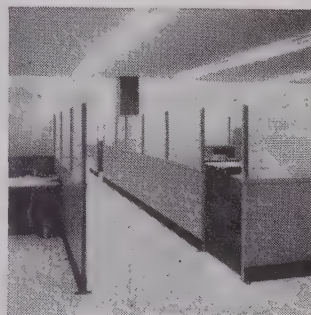
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Independent Study Now Available to Industry

In an effort to obtain pertinent information as to how joint reinforcing actually affects the strength of masonry construction, Dur-O-wal sponsored a program of research carried on by the Research Foundation of the University of Toledo in 1956. The study was designed to provide data on the following items:

1. The relative lateral strength of walls constructed with various types and amounts of reinforcing.
2. The relative effectiveness of various types and amounts of reinforcing used in walls laid up with mortars of widely varying strengths.
3. The effect of deformation in the side rods on the bond in both weak and strong mortars.
4. The effect on bond of the joints formed by the side rods and cross rods.
5. The effect of deforming on the strength of the side rods.

A total of 39 walls, 9'-4" x 4' were built and tested. More than two dozen tension tests were made on plain and deformed wires; 80 pull-out tests were made to determine bond characteristics.

Guide for Comparison

Three points of importance in comparing quality —

1. Weight of material
 - a. Comparison of actual weight per 1000 lineal feet.
 - b. Flexural strength in relation to weight of steel in wall.
2. Deformation
 - a. Report of tests
3. Mortar Locks
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Mr. J. L. Bieler, P.Eng., Chief Engineer, points to enlarged photograph of new plant. Office, in foreground, has windows although completely air-conditioned. Entire manufacturing area is windowless.

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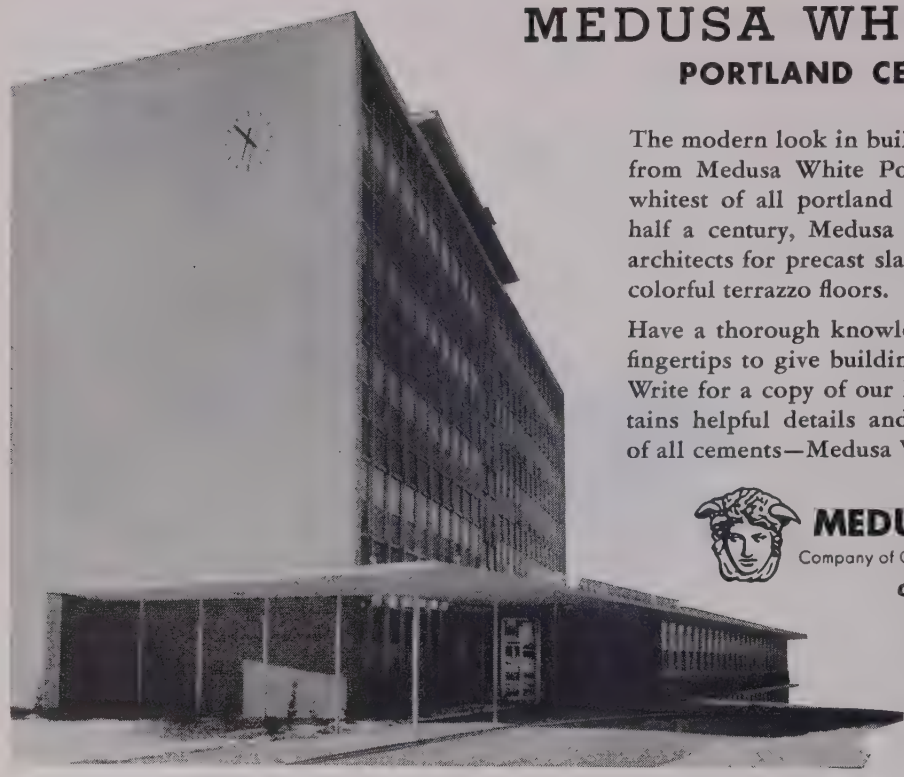
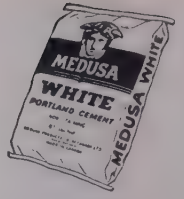
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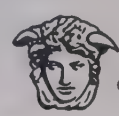
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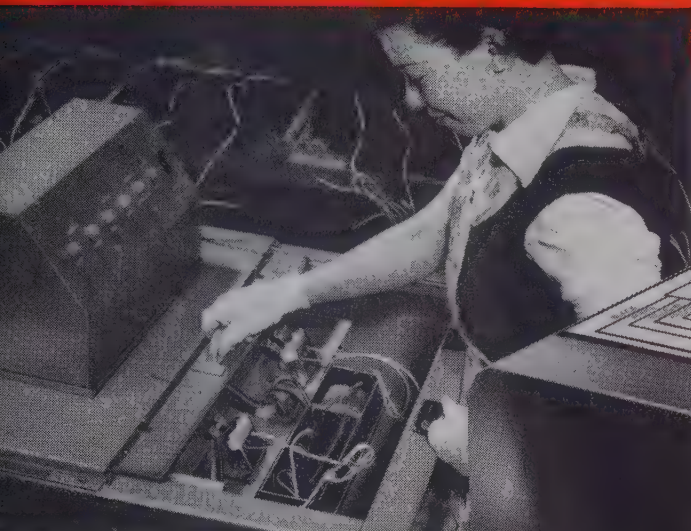
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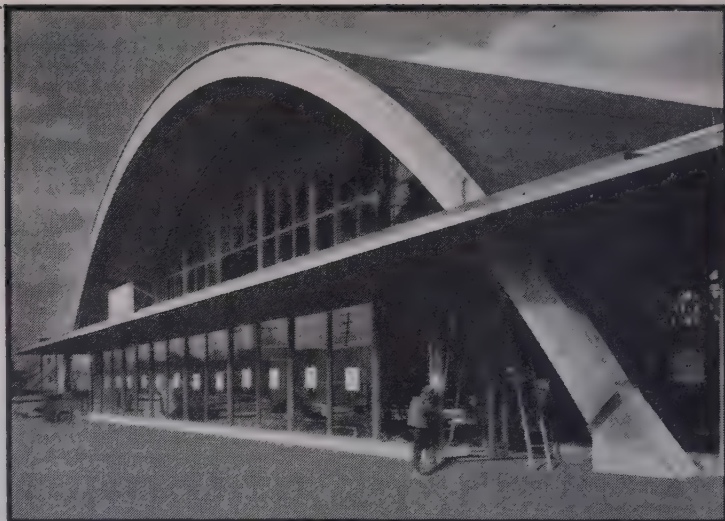
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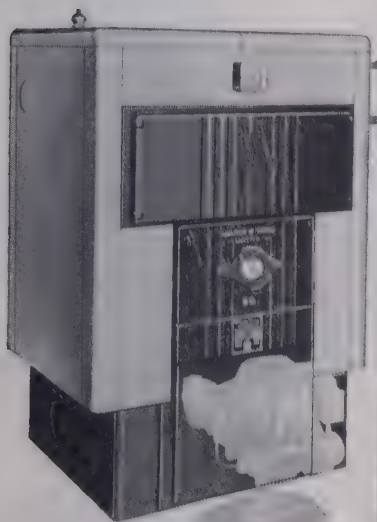


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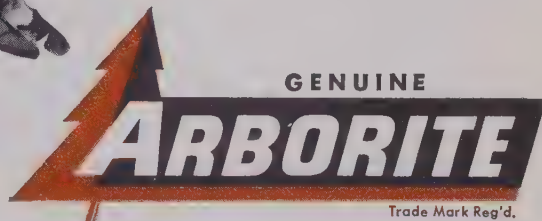
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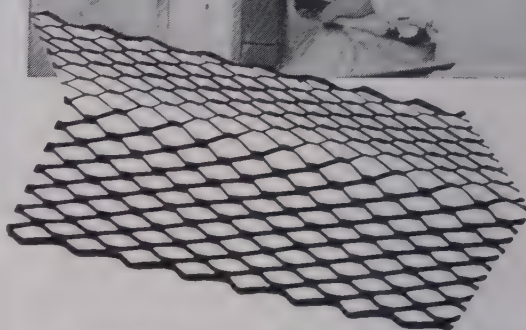
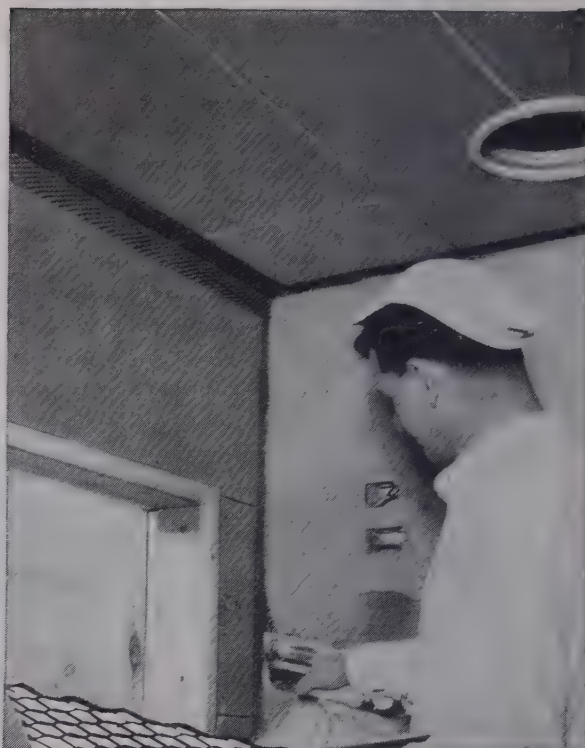
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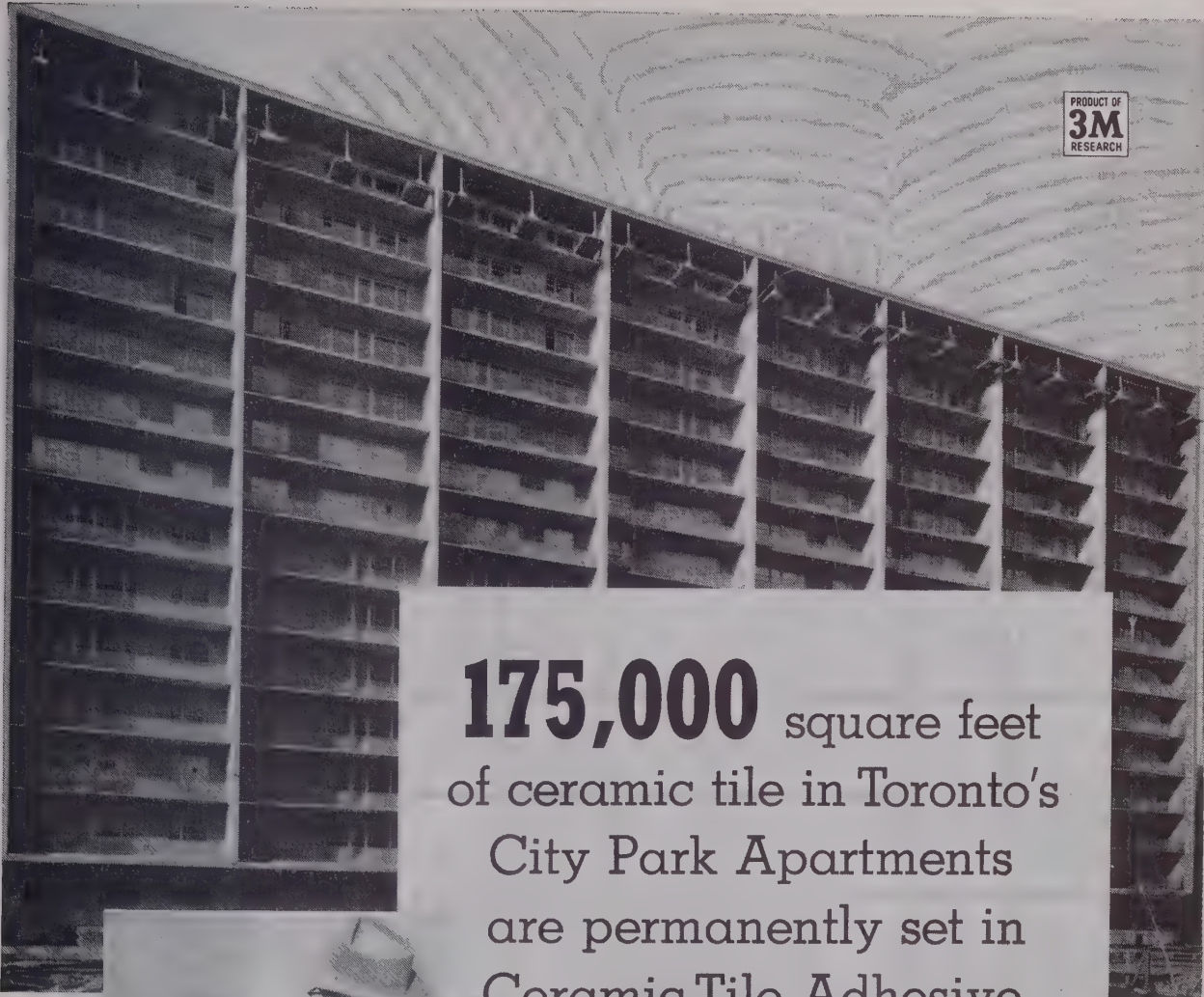
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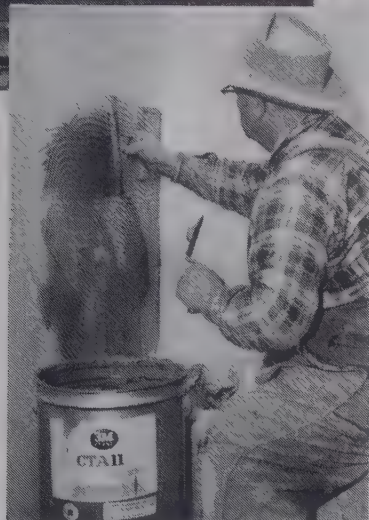


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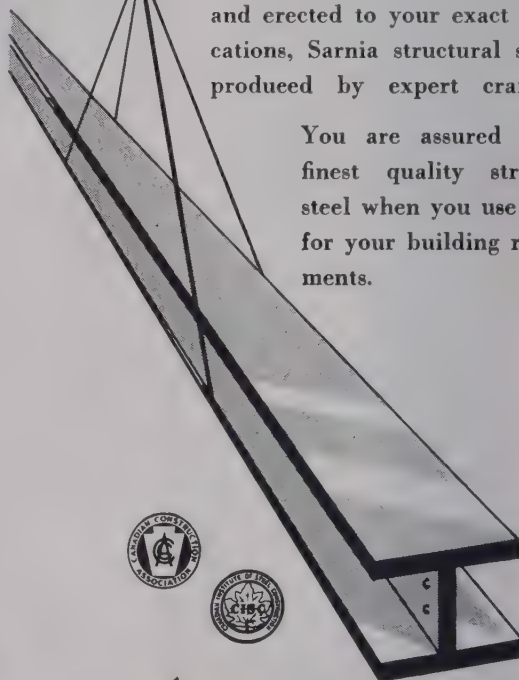
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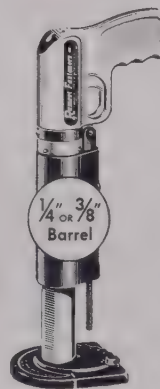
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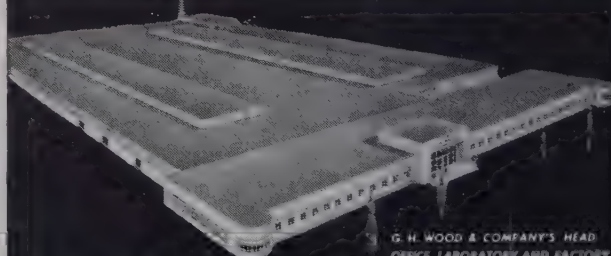
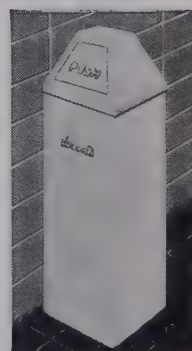
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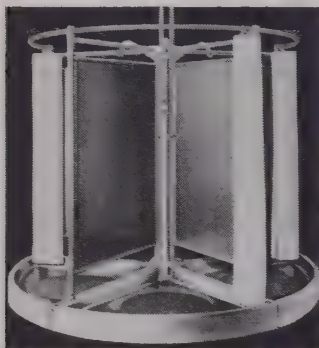
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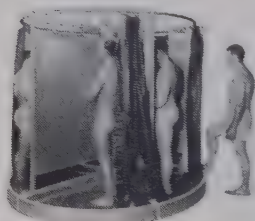
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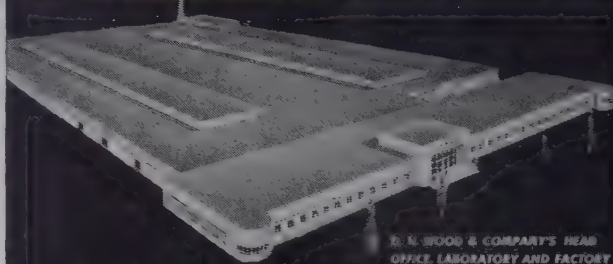
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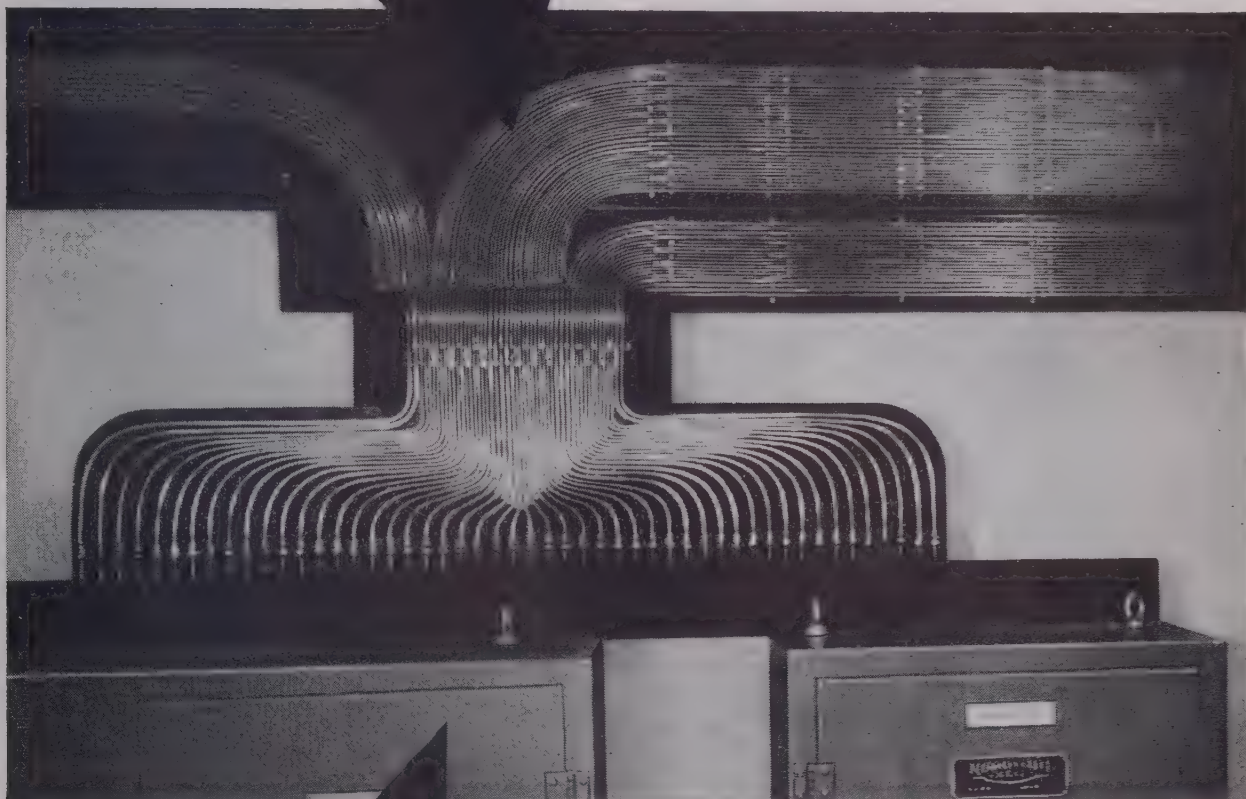
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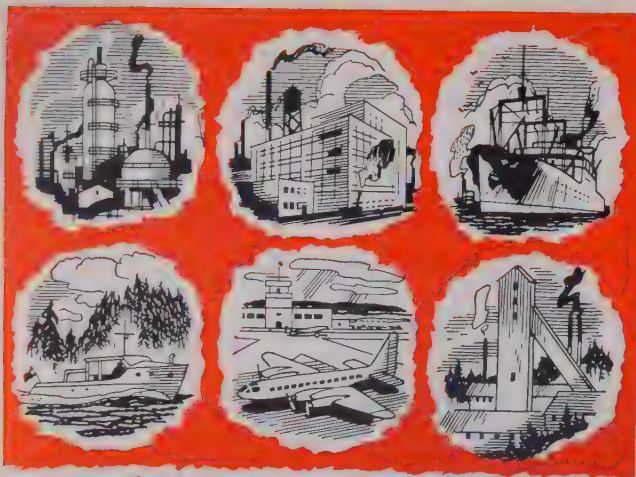
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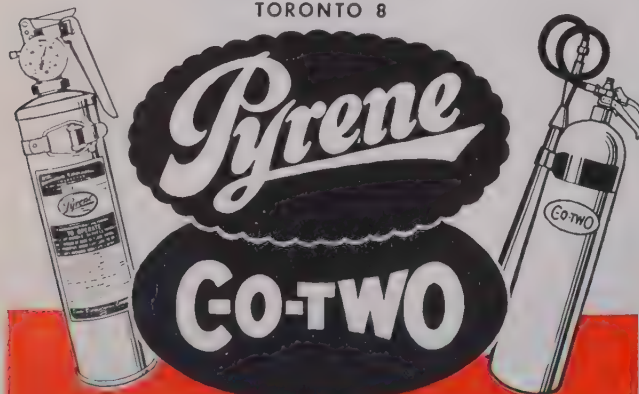
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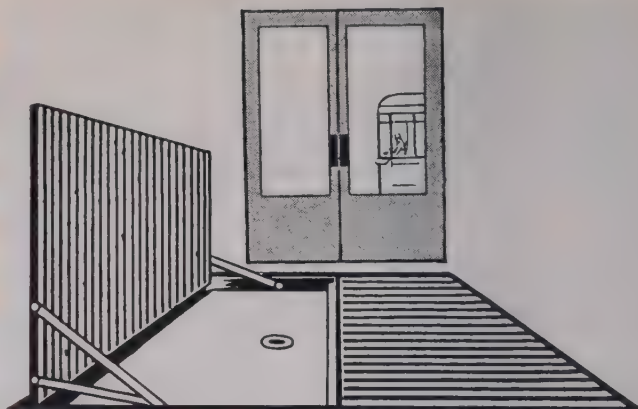
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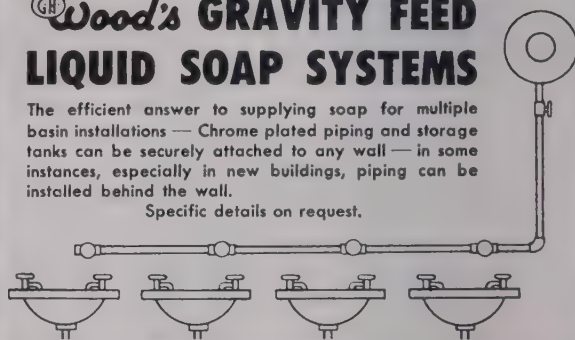
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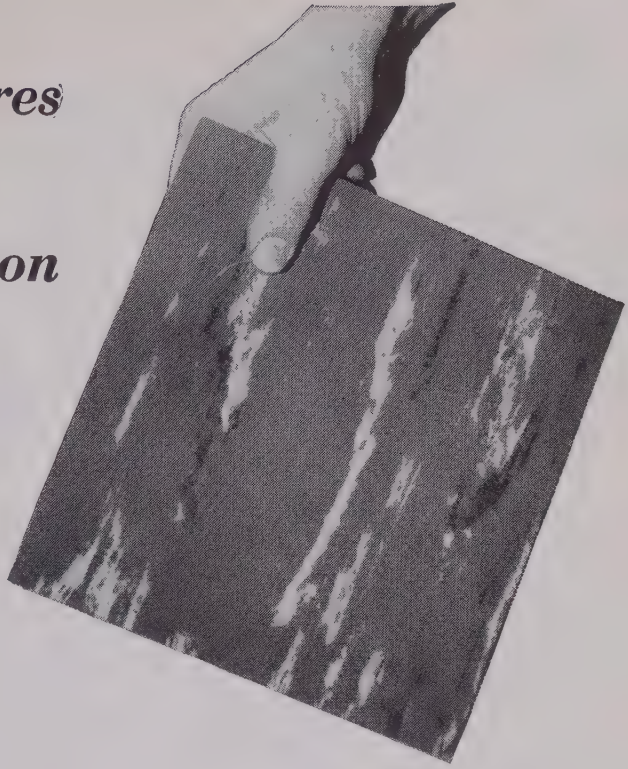
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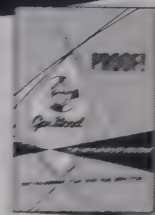
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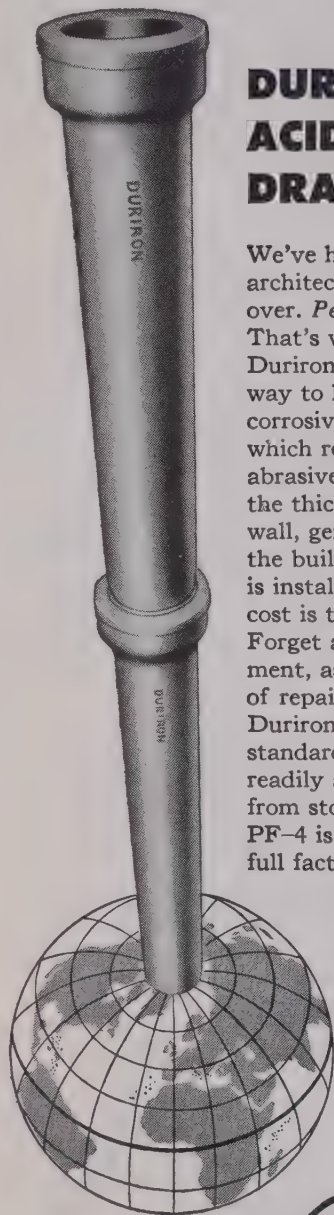
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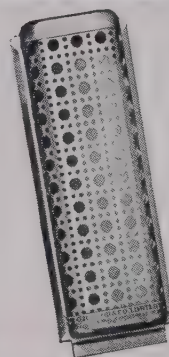
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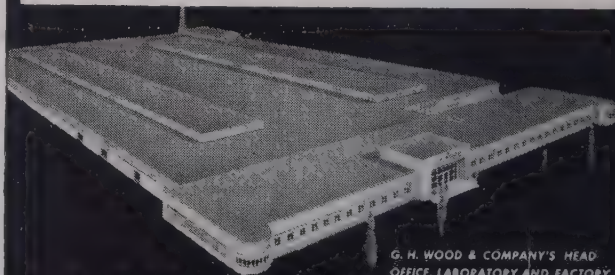
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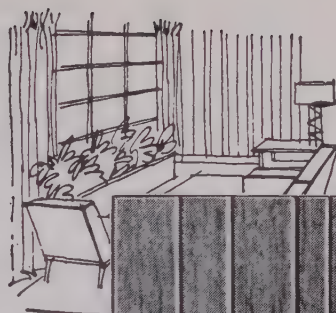
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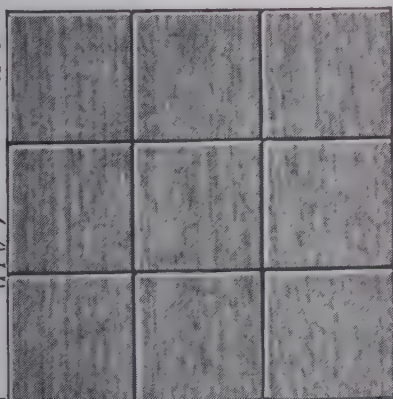


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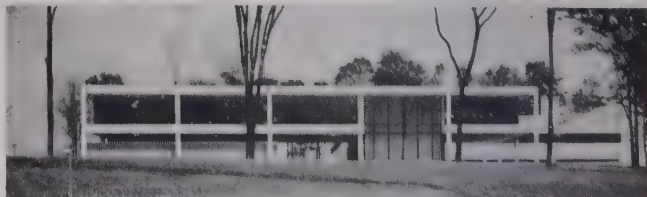
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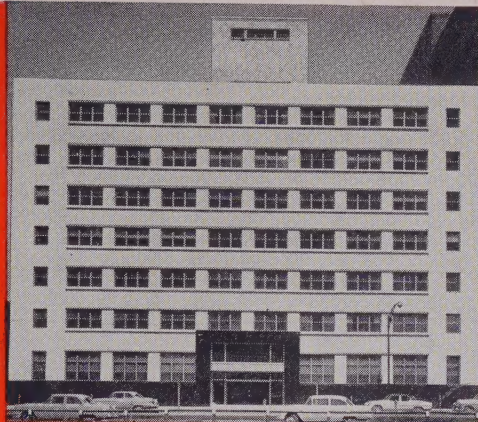
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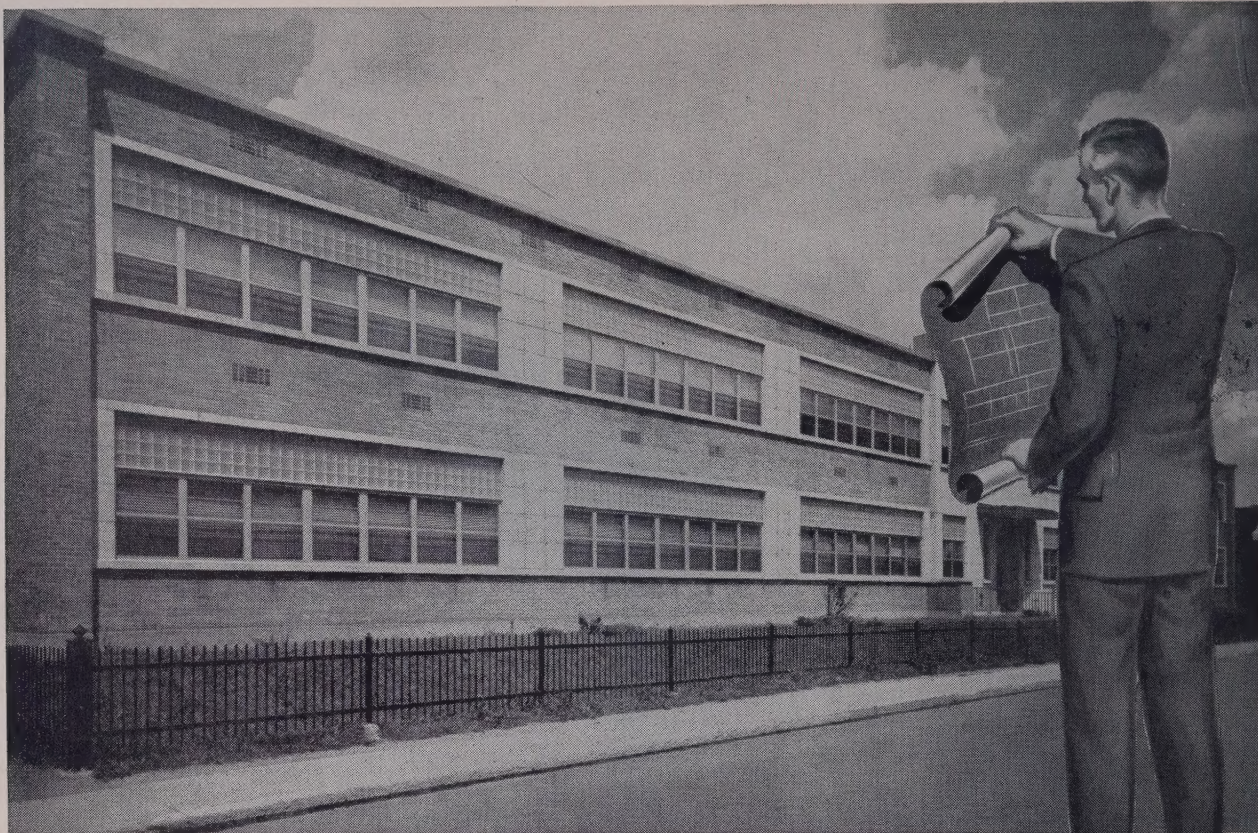
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